Management Discussion and Analysis

ECONOMY OVERVIEW

INDIA

The Indian economy witnessed a slowdown during FY 2019-20 and the GDP is estimated at 4.2% as compared to 6.1% in FY 2018-19. (Source: Press note by National Statistical Office dated May 29, 2020).

The sluggish growth is due to both endogenous and exogenous factors, key indicator being lack of credit growth and demand in market, leading to low growth in final consumption expenditure, decline in gross fixed capital formation and export earnings. Major global contributing factors are the Sino-American trade conflict, Brexit, geopolitical tensions and deceleration in developed economies. Another reason for this sluggish growth is due to poor showing by manufacturing and construction sectors. As per National Statistical office, gross value added (GVA) at Basic Prices for FY 2019-20 from 'Manufacturing' sector is estimated to grow by 0.3% as compared to growth of 8.6% in 2018-19. According to World Bank, India's GDP growth in FY 2020-21 is projected to contract sharply by negative 3.2% which is likely to be the lowest in many decades as the impact of COVID-19 pandemic materializes. Stringent measures to restrict the spread of the virus, which heavily curtail activity, will contribute to the contraction of economic growth. Spillovers from contracting global growth and balance sheet stress in the financial sector will also adversely impact economic activity, despite some support from fiscal stimulus and continued monetary policy easing.

To improve the economic situation, government took measures to revamp the financial sector by increasing credit outflows by the banks and Non-Banking Financial Companies (NBFC)s, reducing stress in real estate sector, liberalising foreign direct investment norms, a significant cut in the corporate tax rate, easing tax rules for foreign portfolio investors and start ups and speeding up resolution process under Insolvency and Bankruptcy Code, 2016.

The COVID-19 pandemic imposed fresh challenges to economy in the fourth quarter of FY 2019-20. Steps taken to contain its spread such as complete lockdown of the country brought economic activities to a standstill and impacted consumption and investment. The Reserve Bank of India (RBI) has moved in a calibrated fashion to ensure conducive financial conditions and normalcy in the functioning of financial markets and institutions. The initial efforts to provide adequate system level liquidity are reflected in the sizable net absorptions under reverse repo operations. Several other measures are taken include relaxation of CRR norms, rate cuts, granting moratorium for loans, enhancing working capital financing to assist sectors and entities which are facing liquidity constraints. The government has come up with targeted measures to ease the economic pain in various sectors and announced overall economic revival package of ₹20 lakh crores. In case of Micro, Small, and Medium Enterprises (MSMEs) government of India announced ₹3 lakhs crores Collateral Free Loans, ₹20,000 crores subordinate debt for stressed MSMEs, 12 months moratorium with 100% credit guarantee cover along with changes in definition of micro units turnover upto ₹5 crores included.

The automobile industry was hit hard in FY 2019-20 as sales fell across vehicle segments. According to data released by SIAM, in FY 2019-20, the Indian automotive industry recorded a 20.3% decline in domestic sales as compared to a 5.9% growth in FY 2018-19. The Passenger Vehicle segment decline 17.3% in FY 2019-20 (as compared to 2.8% growth in FY 2018-19) due to weak consumer sentiment, rising cost of vehicle ownership, liquidity stress and general economic slowdown.

The Commercial Vehicle industry in India registered a 30.0% decline in FY 2019-20 as compared to 17.1% growth in FY 2018-19, as a result of sharp slowdown in the economy, subdued demand, and higher capacity arising from the new axle load norms and the transition to BSVI.

The COVID-19 pandemic has cast a long shadow over a much-anticipated mild recovery in the automobile industry in FY 2020-21 post BSVI migration. Consumers have been postponing their vehicle purchase decisions owing to uncertainty surrounding the COVID-19 pandemic. Passenger Vehicles segment demand is likely to be muted as this segment is significantly impacted by economic slowdown and decline in consumers purchasing power. With the shutdown of all non-essential services accompanied by liquidity and cash crunch, the demand for Commercial Vehicles is expected to be severely impacted in the first half of FY 2020-21 and gradually improve thereafter as the GDP growth is anticipated to pick up on the back of rural recovery, normal monsoon, overall interventions from Government of India and RBI and gradual easing of lockdowns.

WORLD

Global growth decelerated markedly in FY 2019-20 with continued weakness in global trade and investment. This weakness was widespread, affecting both advanced economies (particularly the European market) and Emerging Market & Developing Economies (EMDE). Bilateral negotiations between the United States and China since October 2019 resulted in a phase one agreement. This comes after a prolonged period of rising trade disputes between the two countries, which has heightened policy uncertainty and weighed on international trade, confidence, and investment. Financial market sentiment improved appreciably towards the end of 2019 along with the alleviation of trade tensions. Against this international context, global growth weakened to an estimated 2.4% in 2019 being the lowest rate of expansion since the global financial crisis. Global trade growth—which is estimated to have slowed sharply from 4% in 2018 to 1.4% in 2019, expected to be at the weakest pace since the global financial crisis.

During 2019, there has been a decline in the prices of most commodities mainly reflecting the deterioration in the growth outlook, especially that of emerging markets, which tend to have a larger income elasticity of demand for commodities. Prices for most base metals weakened in the second half of 2019, primarily due to weaker global growth and trade tensions. Agricultural prices declined in the second half of 2019 on improved weather conditions that ensured elevated stock levels for grains.

China growth has decelerated more than previously expected amid cooling domestic demand and heightened trade tensions. Trade policy uncertainty and higher tariffs on trade with the United States weighed on investor sentiment for most of 2019. Industrial production growth has reached multiyear lows, to an estimated 6.1% in 2019. A permanent and lasting resolution of trade disputes with the United States that builds upon recent progress could bolster China's growth prospects and reduce reliance on policy support.

China was further impacted by the COVID-19 pandemic at the end of FY 2019-20. The impact of China's slowdown was felt around the world. Virus outbreak has disrupted manufacturing supply chains and sharply curtailed energy and commodity demand. The market strain is being seen in ways that did not manifest during the global crisis of 2008. While countries and companies continue to understand the enormity of the scale of this pandemic, it is undeniable that the experience of going through this crisis, will lead to questioning of fundamental assumptions and priorities which will be both a challenge and an opportunity. In China, output appears to be recovering from the large drop at the start of the Year, but the strength of the expected rebound is uncertain.

The United States economy continued to grow moderately in year 2019 and the labour market continued to strengthened further. Real GDP is reported to have increased at a moderate rate in the second half of 2019, although growth was somewhat slower than in the first half of the Year and in 2018. Consumer spending rose at a moderate pace. Business fixed investment declined in the second half of last year, reflecting a number of factors that likely include trade policy uncertainty and weak global growth. Downside risks to the U.S. outlook seem to have receded in the latter part of the Year, as the conflicts over trade policy diminished somewhat, economic growth abroad showed signs of stabilizing, and financial conditions eased. After increasing solidly in 2017 and 2018, manufacturing output turned down in year 2019.

In United States, the COVID-19 pandemic and associated large-scale pandemic-control measures have massively disrupted economic activity. Compared to the global financial crisis, weekly unemployment claims have risen much faster, while industrial production and retail sales have fallen much more sharply. The Federal Reserve has cut rates to near-zero, and announced far-reaching measures to stabilize the financial system. The later includes unlimited purchases of U.S. government debt and mortgage-backed obligations, as well as large-scale purchases of corporate bonds and of securities issued by lower levels of government. The U.S. government has also provided fiscal support approaching US$3 trillion, including over US$1 trillion in loans to firms and to state and local governments. U.S. GDP is expected to contract by 6.1% in 2020, 790 bps below previous forecasts, reflecting the severe consequences of the pandemic in the first half of the year and an assumed gradual recovery in the second half. It is subsequently projected to rebound to 4% in 2021, as large-scale policy support gains traction, amid an assumed recovery in consumer and investor confidence.

Economic activity in Europe has deteriorated significantly due to outbreak of COVID-19 pandemic. Several economies were on the verge of recession, with particular weakness in the German industrial sector as it struggled with falling demand from Asia and disruptions to car production. In response, the European Central Bank has offered low-interest loans to banks, significantly boosted asset purchases, and allayed fears of member-country defaults by lifting distributional restrictions on its bond-buying program. Member governments have rolled out significant fiscal support packages. Large member countries are also advancing a major recovery plan for the European Union, including grants for economies hardest hit by the crisis. Euro Area output is expected to contract by 9.1% in 2020 as compared to previous growth forecast of 1%, with all major member countries experiencing recessions before a gradual recovery gets underway late in the year. Growth is forecast to rebound to 4.5% in 2021, reflecting fading pandemic-related drag, and the eventual effects of accommodative fiscal and monetary policy.

United Kingdom GDP growth slowed materially in 2019 with GDP at 1.4% as weaker global growth and Brexit-related uncertainties weighed on spending. Weaker world growth has been partly driven by trade protectionism and an associated rise in global uncertainty. These factors are likely to have weighed on business investment, which had remained sluggish. The Brexit uncertainties that have been facing households, businesses and financial markets are likely to decline gradually, leading to a pickup in household and especially business spending. As a result of the COVID-19 pandemic UK economy is likely to contract in 2020. The UK government has introduced a set of support measures including 5% of GDP in discretionary spending to support business and households, the Job Retention Scheme which provides companies with 80% of furloughed workers salaries, increasing basic unemployment support, providing grants to self-employed people. Monetary policy has been eased, with Bank of England announcing rate cuts, increasing its bond purchasing programme and extending the Ways and Means facility. While the growth is expected to recover in 2021 as confinement measures ease, uncertainty remains around future relationship with European Union and smooth Brexit transition.

(Source: RBI, World bank, IMF, etc.)

COVID-19 Pandemic

The impact of the COVID-19 pandemic has created significant volatility in the global economy and led to reduced economic activity. There have been extraordinary actions taken by international, federal, state, and local public health and governmental authorities to contain and combat the outbreak and spread of COVID-19 in regions throughout the world, including travel bans, quarantines, "stay-at-home" orders, and similar mandates for many individuals to substantially restrict daily activities and for many businesses to curtail or cease normal operations. The pandemic has resulted, and may continue to result, in significant economic disruption that has and likely continue to adversely affect our business.

The ultimate impact of the pandemic on our business, results of operations and financial condition will depend on numerous evolving factors and future developments, including the ultimate duration, spread, severity and repetitiveness of the outbreak; the ultimate extent and duration of its effect on the global economy and how quickly and to what extent normal economic and operating conditions resume.

Consistent with the actions taken by Indian governmental authorities, in late March 2020, our manufacturing operations were also suspended for a period of time and recently we have resumed production at all of our plants. The restart of production commenced at Jaguar Land Rover's China joint venture in March and most of Jaguar Land Rover's plants from mid-May supported by the gradual ramp up of operations in supply base and almost all of the dealer networks have now reopened (partially or fully). In addition, government-imposed restrictions on businesses, operations and travel and the related economic uncertainty have impacted demand for our vehicles in most of our global markets. In response, we are implementing a number of rigorous cost control measures, such as focus on curtailing non-essential spend and rationalization of capital expenditure. A cash improvement program of ₹6,000 crores (including cost savings program of ₹1,500 crores) has been called out. The extent of COVID-19 pandemic impact on our future operations and the demand for our products will depend upon, among other things, the duration, spread, intensity and repetitiveness of the pandemic and related government responses such as required social distancing, restrictions on business operations and travel, the pace of recovery of economic activity and the impact to consumers, all of which are uncertain and difficult to predict in light of the rapidly evolving landscape.

As at March 31, 2020, the Company reviewed its business and operations to take into consideration the estimated impacts and effects of the COVID- 19 pandemic, including the estimated impact on the macroeconomic environment, the market outlook and the Company's operations.

Automotive Operations

Automotive operations is the Company's most significant segment, which includes:

- All activities relating to the development, design, manufacture, assembly and sale of vehicles as well as related spare parts and accessories:

- distribution and service of vehicles; and
- financing of the Company's vehicles in certain markets.

The automotive operation is further divided into four reporting segments:

(i) Tata and other brand vehicles - commercial vehicles;

(ii) Tata and other brand vehicles – passenger vehicles;

(iii) Jaguar Land Rover; and

(iv) Vehicle Financing

Overview of Automotive Operations

The total sales (excluding China joint venture) for FY 2019-20 and FY 2018-19 are set forth in the table below:

	FY 2019-20		FY 2018-19	
	Units	%	Units	%
Passenger cars	2,02,010	21.0%	2,86,730	22.5%
Utility vehicles	4,11,866	42.8%	4,60,056	36.1%
Light Commercial Vehicles	2,17,342	22.6%	3,34,005	26.2%
Medium and Heavy Commercial Vehicles	1,30,245	13.6%	1,93,281	15.2%
Total	**9,61,463**	**100.0%**	**12,74,072**	**100.0%**

We sold 4,85,511 units of Tata Commercial Vehicles and Tata Passenger Vehicles and 4,75,952 units (excluding wholesales from the China Joint Venture) of Jaguar Land Rover vehicles in FY 2019-20. In terms of units sold, our largest market was India where we sold 4,48,614 and 6,93,756 units during FY 2019-20 and FY 2018-19, respectively (constituting 46.7% and 54.5% of total sales in FY 2019-20 and FY 2018-19, respectively), followed by North America, where we sold 1,35,766 units and 1,33,237 units in FY 2019-20 and FY 2018-19, respectively (constituting 14.1% and 10.5% of total sales in FY 2019-20 and FY 2018-19, respectively).

Tata and other brand vehicles

India is the primary market for Tata and other brand vehicles (including vehicle financing). During FY 2019-20, Indian automotive sector was impacted by subdued demand, weak consumer sentiment, economic slowdown and transition to BSVI. Other geographic markets were also affected by various macro and industry headwinds.

The following table sets forth our total sales worldwide of Tata Commercial Vehicles and Tata Passenger Vehicles:

	FY 2019-20		FY 2018-19	
	Units	%	Units	%
Tata Passenger Vehicles	1,37,924	28.4%	2,34,500	30.8%
Tata Commercial Vehicles	3,47,587	71.6%	5,27,286	69.2%
TOTAL	**4,85,511**	**100.0%**	**7,61,786**	**100.0%**

Of the 485,511 units sold overall in FY 2019-20, the Company sold 448,614 units of Tata and other brand vehicles in India and 36,897 units outside of India, compared to 6,93,756 units and 68,030 units, respectively in FY 2018-19.

We maintained our leadership position in the Commercial Vehicle category in India, which was characterized by increased competition during the year. The Passenger Vehicle market also continued to be subject to intense competition.

The following table sets forth our market share in various categories in the Indian market based on wholesale volumes:

Category	Year ended March 31,	
	2020	2019
Passenger Cars	4.2%	5.9%
Utility Vehicles	5.6%	7.0%
Total PV	**4.8%**	**6.3%**
Medium and Heavy Commercial Vehicles	57.4%	55.0%
Intermediate and Light Commercial Vehicles	47.2%	45.4%
SCVs & Pickups	37.9%	40.1%
CV Passenger Vehicles	40.9%	44.0%
Total CV	**43.0%**	**45.1%**
Total Four-Wheel Vehicles	**12.7%**	**15.5%**

Source: Society of Indian Automobile Manufacturers Report and our internal analysis.

Passenger Vehicles in India

Industry-wide sales of Passenger Vehicles in India decreased by 17.3% in FY 2019-20, compared to a 2.8% growth in FY 2018-19, while Utility Vehicles sales remained flat during FY 2019-20 as a result of weak consumer sentiment, rising cost of vehicle ownership, liquidity stress and general economy slowdown. Our Passenger Vehicle sales in India decreased by 37.4% to 1,31,796 units in FY 2019-20 from 2,10,500 units in FY 2018-19, due to macro headwinds impacting the industry, our focus on retail sales for seamless transition to BSVI and streamlining the distribution and retail infrastructure. During the FY 2019-20 the Passenger Vehicle retail sales were 13% higher than Passenger Vehicle wholesales. For smooth transition to BSVI, the Company was focused on stock reduction through retail acceleration. We have achieved seamless transition to BSVI with our "New Forever" range.

We sold 71,719 units in the Passenger Car category (Tata-brand vehicles in India) in FY 2019-20, compared to 1,31,035 units in FY 2018-19. In January 2020, we launched, Altroz (a premium hatchback and the first model from ALFA platform) and we sold 8,426 units. Our market share for Passenger Cars in India was lower at 4.2% in FY 2019-20, as compared to 5.9% in FY 2018-19.

In the Utility Vehicles category, we sold 60,077 units in FY 2019-20, representing a decrease of 24.4% from 79,465 units in FY 2018-19. Our market share of Utility Vehicles in India decreased and currently stands at 5.6% in FY 2019-20, compared to 7.0% in FY 2018-19.

Commercial Vehicles in India

Industry sales of Commercial Vehicles decreased by 30.0% to 7,26,762 units in FY 2019-20 from 10,38,834 units in FY 2018-19. Industry sales in the MHCVs has declined the most by 51.9% at 1,32,272 units in FY 2019-20, as compared to 2,74,750 in FY 2018-19. Industry sales of ILCV reported a decrease of 29.0% to 89,066 units in FY 2019-20, from 1,25,471 units in FY 2018-19. Industry sales of SCV & Pickups reported a decrease of 20.2% to 411,352 units in FY 2019-20, from 5,15,491 units in FY 2018-19. Industry sales of CV Passenger reported a decrease of 23.6% to 94,072 units in FY 2019-20, from 1,23,122 units in FY 2018-19.

Despite several challenges, through focused management efforts we achieved seamless transition into BS VI. As a result, our BS IV inventory in the ecosystem was near zero.

MHCVs in India

Our sales in the MHCVs category in India decreased by 49.7% to 75,918 units in FY 2019-20, as compared to sales of 1,51,004 units in FY 2018-19. The decline was witnessed on account of higher capacity arising from axle load regulations, poor freight availability, the falling freight rates, slowdown in the infrastructure developments, delayed payments to contractors, liquidity stress and overall sharp decline in the economy. We increased the market share in this segment by 240 basis points thereby continuing to drive our competitiveness.

ILCVs in India

Our sales in the ILCVs in India segment decreased by 26.2% to 42,077 units in FY 2019-20, from 57,015 units in FY 2018-19. The ILCV industry in India declined mainly due to lack of replacement demand, slowdown in economy, liquidity constraints and decline in discretionary spending. We increased the market share in this segment by 180 basis points thereby continuing to drive our competitiveness.

SCVs & Pickups in India

Our sales in SCVs & Pickups segment in India decreased by 24.6% to 1,55,790 units in FY 2019-20 from 2,06,655 units in FY 2018-19. The SCV segment is heavily dependent on the 'First Time User' category of customers and thus has been impacted due to the liquidity crunch, higher interest rates and difficulty in funding from the NBFCs. We lost market share in the pick-up segment and intend to redress the same with the launch of the new Intra platform.

CV Passenger Vehicles in India

Our sales in CV Passenger Vehicles segment in India decreased by 28.9% to 38,482 units in FY 2019-20 from 54,114 units in FY 2018-19, due to overall decline in industry volume.

Tata Commercial Vehicles and Tata Passenger Vehicles — Exports

International business has consistently expanded since its inception in 1961. We have a global presence in more than 46 countries, including all South Asian Association for Regional Cooperation countries, South Africa, Africa, Middle East, Southeast Asia and Ukraine. We markets a range of products including M&HCV trucks, LCV trucks, buses, pickups and small commercial vehicles.

Our overall sales in international markets decreased by 41.4% to 31,144 units in FY 2019-20 as compared to 53,140 units in FY 2018-19. Our top five export destinations for vehicles manufactured in India, were Bangladesh, Nepal, Sri Lanka, Kuwait and Tanzania, which accounted for 73% of the exports of Commercial Vehicles, while Nepal, Bangladesh, Tanzania, Bhutan and Sri Lanka were top 5 export destinations for Passenger Vehicles and accounted for 99% of exports of Passenger Vehicles. We intend to strengthen our position in the geographic areas we are currently operating in and explore possibilities of entering new markets with similar market characteristics to the Indian market. Commercial vehicles exports were 29,664 units in FY 2019-20, as compared to 51,119 units in FY 2018-19. Global economic slowdown and liquidity crunch impacted the industry volumes across most of our major markets, for instance SAARC, Middle east and African markets witnessed a decline in volumes in FY 2019-20 as compared to FY 2018-19. Our market shares in almost all focus markets have either improved or sustained as compared to FY 2018-19. We also corrected our distributor stocks which had built up due to the sudden drop in demand and completed many prestigious orders with major municipalities and government bodies across the globe. Passenger Vehicles exports were at 1,480 units in FY 2019-20, compared to 2,021 units in FY 2018-19. 200 Units of Hexa were supplied to Bangladesh army.

Tata Daewoo Commercial Vehicle Co. Ltd. or TDCV's, our subsidiary Company which engages in the design, development and manufacturing of MHCVs, witnessed a decrease in overall sales by 22.2% to 5,190 units in FY 2019-20 from 6,672 units in FY 2018-19. In its domestic market (South Korea), TDCV's sales decreased by 18.1% from 4,371 units in FY 2018-19 to 3,581 units in FY 2019-20, primarily due to lower industry volumes, aggressive discounting and marketing strategies of importers and impact of COVID-19 pandemic in fourth quarter of FY 2019-20. The combined market share was 20.5% in FY 2019-20 as compared to 21.1% in FY 2018-19. The export market scenario continued to remain challenging in FY 2019-20 due to factors such as continuing statutory regulations to reduce imports, global economic downturn and COVID-19 pandemic which has adversely impacted overall sales. The export sales showed reduction of 30.1% from 2,301 units in FY 2018-19 to 1,609 units in FY 2019-20.

Tata Commercial Vehicles and Tata Passenger Vehicles — Sales and Distribution

Our sales and distribution network in India as at March 2020 comprised approximately over 5,528 touch points for sales and service for its Passenger Vehicles and Commercial Vehicles businesses. We use a network of service centres on highways and a toll-free customer assistance centre to provide 24-hour roadside assistance, including replacement of parts, to vehicle owners.

We have customer relations management system, or CRM, at all of our dealerships and offices across the country, which supports users both at our Company and among our distributors in India and abroad.

We market our Commercial Vehicles and Passenger Vehicles in several countries in Africa, the Middle East, South East Asia, South Asia, Australia, Latin America, Russia and the Commonwealth of Independent States countries. We have a network of distributors in all such countries, where we export our vehicles. Such distributors have created a network of dealers and branch offices and facilities for sales and after-sales servicing of our products in their respective markets. We have also stationed overseas resident sales and service representatives in various countries to oversee our operations in the respective territories.

Tata Commercial Vehicles and Tata Passenger Vehicles— Competition

We face competition from various domestic and foreign automotive manufacturers in the Indian automotive market. Improving infrastructure and robust growth prospects compared to other mature markets have attracted a number of international companies to India who have either formed joint ventures with local partners or have established independently owned operations in India. Global competitors bring with them decades of international experience, global scale, advanced technology and significant financial resources, and as a result, competition is likely to further intensify in the future. We have designed our products to suit the requirements of the Indian market based on specific customer needs, such as safety, driving comfort, fuel-efficiency and durability. We believe that our vehicles are suited to the general conditions of Indian roads and the local climate. The vehicles have also been designed to comply with applicable environmental regulations currently in effect. We also offer a wide range of optional configurations to meet the specific needs of our customers. We intend to develop and are developing products to strengthen our product portfolio in order to meet the increasing customer expectation of owning world-class products.

Tata Commercial Vehicles and Tata Passenger Vehicles— Seasonality

Demand for our vehicles in the Indian market is subject to seasonal variations. Demand generally peaks between January and March, although there is a decrease in demand in February just before release of the Government of India's fiscal budget. Demand is usually lean from April to July and picks up again in the festival season from September onwards, with a decline in December due to year end.

Tata and other brand vehicles – Vehicle Financing

Through our wholly owned subsidiary TMF Holdings Ltd. and its step down subsidiaries Tata Motors Finance Ltd. (TMFL) and Tata Motors Finance Solutions Ltd. (TMFSL), we provide financing services to purchasers of our vehicles through independent dealers, who act as our agents for financing transactions, and through our branch network. TMF Group disbursed ₹15,029 crores and ₹21,993 crores in vehicle financing during FY 2019-20 and FY 2018-19, respectively. During FY 2019-20 and FY 2018-19, approximately 30% and 26%, respectively, of our vehicle unit sales in India were made by the dealers through financing arrangements with Company's captive financing subsidiary. As at March 31, 2020 and 2019, TMF Group's customer finance receivable portfolio comprised 6,24,354 and 5,77,399 contracts, respectively. We follow specified internal procedures, including quantitative guidelines, for selection of our finance customers and assist in managing default and repayment risk in our portfolio. We originate all of the contracts through our authorized dealers and direct marketing agents with whom we have agreements. All of our marketing, sales and collection activities are undertaken through dealers or by TMF Group.

TMFL securitizes or sells our finance receivables on the basis of the evaluation of market conditions and funding requirements. The constitution of these pools is based on criteria that are decided by credit rating agencies and/or based on the advice that we receive regarding the marketability of a pool. TMFL undertakes these securitizations of our receivables due from purchasers by means of private placement.

TMFL acts as the collection agent on behalf of the investors, representatives, special purpose vehicles or banks, in whose favor the receivables have been assigned, for the purpose of collecting receivables from the purchasers on the terms and conditions contained in the applicable deeds of securitization, in respect of which pass-through certificates are issued to investors in case of special purpose vehicles, or SPVs. TMFL also secures the payments to be made by the purchasers of amounts constituting the receivables under the loan agreements to the extent specified by rating agencies by any one or all of the following methods:

- furnishing collateral to the investors, in respect of the obligations of the purchasers and the undertakings to be provided by TMFL;
- furnishing, in favor of the investors, 15% of the future principal in the receivables as collateral, for securitizations done through FY 2019-20, either by way of a fixed deposit or bank guarantee or subordinate tranche to secure the obligations of the purchasers and our obligations as the collection agent, based on the quality of receivables and rating assigned to the individual pool of receivables by the rating agency(ies); and
- by way of over-collateralization or by investing in subordinate pass-through certificates to secure the obligations of the purchasers.

TMF Group also undertakes direct assignment where there is no support provided to the investors of the pool in the form of credit enhancement. TMF Group realigned its strategy in FY 2019-20, by adopting the asset-lite model. It meant disbursing in the form of financial warehousing, subsequently curating the eligible assets for specific period and then selling to market participants which are mostly public and private sector banks by way of direct assignments.

Jaguar Land Rover

Total wholesales of Jaguar Land Rover vehicles (excluding Chery Jaguar Land Rover) with a breakdown between Jaguar and Land Rover brand vehicles, in FY 2019-20 and FY 2018-19 are set forth in the table below:

	FY 2019-20		FY 2018-19	
	Units	%	Units	%
Jaguar	1,25,820	26.4%	1,53,757	30.3%
Land Rover	3,50,132	73.6%	3,54,138	69.7%
Total	**4,75,952**	**100.0%**	**5,07,895**	**100.0%**

In FY 2019-20, Jaguar Land Rover wholesale volumes (excluding our China Joint Venture) were 4,75,952 units down 6.3%, compared to FY 2018-19, and wholesale volumes of China Joint Venture were 49,450 units, reflecting a 13.9% decrease compared to the 57,428 units in FY 2018-19. The decrease in wholesales volumes (excluding our China Joint Venture) in FY 2019-20 primarily reflects the decline in sales in the fourth quarter (a decrease of 20.3% as compare to FY 2018-19) as a result of the COVID-19 pandemic. By region, Jaguar Land Rover wholesale volumes (excluding our China Joint Venture) were 1,35,766 in North America (an increase of 1.9% as compared to FY 2018-19), but decreased in other regions at 14.2%, 8.8%, 7.3% and 4.6% respectively in other overseas market, Europe, UK and China. Wholesale volumes recovered well in the 9 months to December 31, 2019, (an increase of 8.5% as compare to the same period in FY 2018-19), before the COVID-19 pandemic impacted sales in the fourth quarter of FY 2019-20. By model, the increase of wholesale volumes of the all-new Range Rover Evoque (an increase of 44.2% year-on-year), the commencement of sales of our all-new Land Rover Defender and the award-winning Jaguar I-PACE (an increase of 2.0% year-on-year) were offset by decline in sales of other models, including the Land Rover Discovery Sport.

Jaguar wholesale volumes were 1,25,820 units, down 18.2% compared to FY 2018-19, with increased sales of the all-electric I-PACE (up 2.0%), were offset by lower sales of other models.

Land Rover wholesale volumes were 3,50,132 units, down slightly 1.1% compared to FY 2018-19, as significantly higher sales of the all-new Range Rover Evoque (an increase of 44.2% as compared to FY 2018-19) and the start of sales of the all-new Land Rover Defender largely offset lower sales of other models.

Jaguar Land Rover's performance in key geographical markets on a retail basis:

Retail volumes (including retail sales from the China Joint Venture) in FY 2019-20 declined by 12.1% to 5,08,659 units from 5,78,915 units in FY 2018-19 with over two-thirds of that volume decline occurring in the fourth quarter as the COVID-19 pandemic impacted sales and the supply of vehicles across all regions.

United Kingdom

Industry vehicle sales fell 10.9% in FY 2019-20 in the United Kingdom as diesel vehicle sales decline 28.5% year-on-year and continued volatility in the run up to the general election in December 2019 and uncertainty related to Brexit and the subsequent transition period which is currently scheduled to end on December 31, 2020. Jaguar Land Rover retail volumes decreased by 9.6% to 106,612 units in FY 2019-20 compared to 1,17,915 units in FY 2018-19. By brand, Jaguar retails were 32,533 vehicles in FY 2019-20, down 15.5% compared to 38,515 vehicles in FY 2018-19, and Land Rover retails were 74,079 vehicles, down 6.7% compared to 79,400 vehicles in FY 2018-19.

North America

Economic performance in North America weakened in FY 2019-20, with interest rate reductions even prior to the monetary policy actions implemented to combat the economic impact of the COVID-19 pandemic and industry vehicle sales down 3.9% year-on-year. Jaguar Land Rover retails also decreased, down 7.5% year on year, to 129,346 units in FY 2019-20 compared to 1,39,778 units in FY 2018-19. By brand, Jaguar retails were 30,095 vehicles in FY 2019-20, down 18.1% compared to 36,768 vehicles in FY 2018-19, and Land Rover retails, were 99,251, down 3.6% compared to 1,03,010 last year.

Europe

Economic growth in Europe was low in FY 2019-20 due to negative impact of Brexit and rising protectionism in the EU with economic activity in Germany and Italy, diesel uncertainty, the reduction in subsidies for electric vehicles, notably in the Netherlands impacted sales in Europe. Industry volumes in Europe were down 4.8% but Jaguar Land Rover retail sales declined further, down 16.1% year on year to 1,07,037 vehicles in FY 2019-20 from 127,566 in FY 2018-19, By brand, Jaguar retails were 35,335 vehicles in FY 2019-20, down 28.6% compared to 49,474 vehicles in FY 2018-19, and Land Rover retails were 71,702 in FY 2019-20, down 8.2% compared to 78,092 vehicles in FY 2018-19.

China

Economic growth continued to slow in China during FY 2019-20 as weaker market conditions and trade tension with the US continued. Further the COVID-19 pandemic has resulted in nationwide shutdown in China for most of the fourth quarter. As a result industry vehicle sales declined by 16.6% year on year however Jaguar Land Rover retail volumes (including sales from the China Joint Venture) decreased by less than the industry, down 8.9% (despite a strong recovery in the second and third quarter, with double digit year-on-year growth) to 90,124 units in FY 2019-20 from 98,922 units in FY 2018-19. By brand, Jaguar retails were 26,061 vehicles in FY 2019-20, down 20.5% compared to 32,797 vehicles in FY 2018-19, and Land Rover retails were 64,063 vehicles in FY 2019-20, down 3.1% compared to 66,125 vehicles in FY 2018-19.

Other Overseas markets

Conditions in other overseas markets remained challenging in FY 2019-20 with bushfires in Australia, tensions and conflict in the Middle East, and sluggish growth in Russia which hampered demand and the trade tensions between the US and China impacting sales in Asia, notably South Korea. Jaguar Land Rover's retail volumes in other overseas markets decreased by 20.3% to 75,540 vehicles in FY 2019-20 compared to 94,734 units in the FY 2018-19. By brand, Jaguar retails were 16,569 vehicles in FY 2019-20, down 26.8% compared to 22,644 vehicles in FY 2018-19, and Land Rover retails were 58,971 vehicles in FY 2019-20, down 18.2% compared to 72,090 vehicles in FY 2018-19.

Jaguar Land Rover's Sales & Distribution

As at March 31, 2020, Jaguar Land Rover distributes its vehicles in 124 markets for Jaguar and 128 markets for Land Rover globally. Sales locations for vehicles are operated as independent franchises. Jaguar Land Rover are represented in its key markets through its National Sales Company's ('NSC's') as well as third party importers. Jaguar and Land Rover have regional offices in certain select countries that manage customer relationships and vehicle supplies and provide marketing and sales support to their regional importer markets. The remaining importer markets are managed from the United Kingdom.

Jaguar Land Rover products are sold through a variety of sales channels: through its dealerships for retail sales; for sale to fleet customers, including daily rental car companies; commercial fleet customers; leasing companies; and governments. Jaguar Land Rover do not depend on a single customer or small Group of customers to the extent that the loss of such a customer or Group of customers would have a material adverse effect on its business.

As at March 31, 2020, Jaguar Land Rover global sales and distribution network comprised 23 NSCs, 77 importers, 2 export partners and 2,874 franchise sales dealers, of which 1,323 are joint Jaguar and Land Rover dealers.

Jaguar Land Rover — Competition

Jaguar Land Rover operates in a globally competitive environment and faces competition from established premium and other vehicle manufacturers who aspire to move into the premium performance car and premium SUV markets, some of which are much larger than they are. Jaguar vehicles compete primarily against other European brands such as Audi, Porsche, BMW and Mercedes Benz as well as Tesla. Land Rover and Range Rover vehicles compete largely against SUVs from companies such as Audi, BMW, Infiniti, Lexus, Mercedes Benz, Porsche, Volvo and Volkswagen.

Jaguar Land Rover — Seasonality

Jaguar Land Rover volumes are impacted by the biannual change in age related registration plates of vehicles in the United Kingdom, where new age related plate registrations take effect in March and September. This has an impact on the resale value of the vehicles because sales are clustered around the time of the Year when the vehicle registration number change occurs. Seasonality in most other markets is driven by the introduction of new model year vehicles and derivatives. Furthermore, Western European markets tend to be impacted by summer and winter holidays, and the Chinese market tends to be affected by the Lunar New Year holiday in either January or February, the PRC National Day holiday and the Golden Week holiday in October. The resulting sales profile influences operating results on a quarter to quarter basis.

Other Operations

In addition to our automotive operations, we are also involved in other business activities, including information technology services, machine tools and factory automation services. The Company's revenue from other operations before inter-segment eliminations was ₹3,047 crores in FY 2019-20, a decrease of 16.0% from ₹3,626 crores in FY 2018-19. Revenues from other operations represented 1.2% of total revenues, before inter-segment eliminations, in FY 2019-20 and FY 2018-19.

A. OPERATING RESULTS

All financial information discussed in this section is derived from our Audited Consolidated Financial Statements.

We have adopted Ind AS 116 with a modified retrospective approach. Accordingly, we have presented our prior comparative period without applying the principles Ind AS 116. Refer to Note 2(x) of our consolidated financial statements section.

Overview

In FY 2019-20 income from operations including finance revenues decreased by 13.5% to ₹2,61,068 crores in FY 2019-20 from ₹3,01,938 crores in FY 2018-19. The decrease was mainly attributable to lower sales volumes from both Tata Motors and Jaguar Land Rover and an unfavorable currency translation from GBP to INR. The net loss (attributable to Shareholders of our Company) was ₹12,071 crores in FY 2019-20, as compared to a loss of ₹28,826 crores in FY 2018-19. In FY 2019-20 we have taken an impairment charge and provision for onerous contract of ₹2,549 crores for our Passenger Vehicle segment as against ₹27,838 crores in FY 2018-19 for Jaguar Land Rover business. The loss in FY 2019-20 was driven by the subdued performance of Tata Motors along with Jaguar Land Rover, including higher variable marketing expenses/selling costs.

Automotive operations

Automotive operations are our most significant segment, accounting for 99.3% and 99.2% of our total revenues in FY 2019-20 and FY 2018-19, respectively. In FY 2019-20, revenue from automotive operations before inter-segment eliminations was ₹2,59,292 crores as compared to ₹2,99,656 crores in FY 2018-19.

	FY 2019-20	FY 2018-19	Change %
Total revenue (₹ in crores)	2,59,292	2,99,656	(13.5)
Earning before other income, interest and tax (₹ in crores)	(43)	3,389	(101.3)
Earning before other income, interest and tax (% to total revenue)	(0.02)%	1.1%	

Our automotive operations segment is further divided into four reporting segments: Tata Commercial Vehicles, Tata Passenger Vehicles, Jaguar Land Rover and Vehicle financing.

In FY 2019-20, Jaguar Land Rover contributed 80% of our total automotive revenue compared to 75% in FY 2018-19 (before intra-segment elimination) and the remaining 20% was contributed by Tata and other brand vehicles and Financing in FY 2019-20 compared to 25% in FY 2018-19.The following table sets forth selected data from Tata and other brand vehicles (including vehicle financing) and Jaguar Land Rover in FY 2019-20 and FY 2018-19 and the percentage change from period to period (before intra-segment eliminations) is set forth in the table below.

	FY 2019-20	FY 2018-19	Change
	(₹ in crores)		%
Tata and other brand vehicles including vehicle financing	51,322	76,418	(32.8)
Jaguar Land Rover	2,08,040	2,23,514	(6.9)
Intra-segment elimination	(70)	(276)	74.6%
Total	**2,59,292**	**2,99,656**	**(13.5)**

The Tata and other brand vehicles including vehicle financing consists of following categories:

	FY 2019-20	FY 2018-19	Change
	(₹ in crores)		%
Commercial Vehicles	36,329	58,137	(37.5)
Passenger Vehicles	10,482	14,467	(27.6)
Vehicle Financing	4,295	3,700	16.1
Unallocable	216	111	94.6%
TOTAL	**51,322**	**76,418**	**(32.8)**

Other operations

Our other operations business segment mainly includes information technology services, machine tools and factory automation solutions.

The following table sets forth selected data regarding our other operations for the periods indicated and the percentage change from period to period (before inter-segment eliminations).

	FY 2019-20	FY 2018-19	Change (%)
Total revenue (₹ in crores)	3,047	3,626	(16.0)
Earning before other income, interest and tax (₹ in crores)	382	505	(24.4)
Earning before other income, interest and tax (% to total revenue)	12.5%	13.9%	

Geographical Breakdown

As a result of account of COVID-19 pandemic, there is a significant reduction in revenue across most geographical markets in FY 2019-20, the decline was lower in United States and China as compared to other economies. In FY 2019-20 percentage of revenues in China and the United States have improved as compared to FY 2018-19. China witnessed a double digit growth in volumes in second and third quarter of FY 2019-20 and a decline on account of impact of COVID-19 in fourth quarter of FY 2019-20, thus resulting in marginal decline in revenues as compared to FY 2018-19. Further, in FY 2019-20, the revenue of our subsidiary in South Korea, TDCV, declined due to lower industry volumes and aggressive discounting and marketing strategy of importers. Due to decreased revenue in India, on account of lower volumes as explained above in FY 2019-20, the proportion of our net sales earned from geographic markets outside of India increased from 77.4% in FY 2018-19 to 82.0% in FY 2019-20. The following table sets forth our revenue from our key geographical markets:

Revenue	FY 2019-20		FY 2018-19	
	(₹ in crores)	%	(₹ in crores)	%
India	47,094	18.0%	68,087	22.5%
China	29,820	11.4%	30,415	10.1%
UK	42,443	16.3%	49,114	16.3%
United States	52,030	19.9%	52,473	17.4%
Rest of Europe	43,227	16.6%	49,814	16.5%
Rest of World	46,454	17.8%	52,035	17.2%
Total	**2,61,068**		**3,01,938**	

The "Rest of Europe" market is geographic Europe, excluding the United Kingdom and Russia. The "Rest of World" market is any regions not included above.

The following table sets forth selected items from our consolidated statements of income for the periods indicated and shows these items as a percentage of total revenue:

	FY 2019-20	FY 2018-19
	(%)	(%)
Revenue from operations	100.0	100.0
Expenditure:		
Cost of material consumed (including change in stock)	64.0	65.0
Employee Cost	11.7	11.0
Product development/Engineering expenses	1.6	1.4
Other expenses (net)	21.8	20.6
Amount transferred to capital and other accounts	(6.7)	(6.5)
Total Expenditure	92.4	91.5
Profit before other income, Depreciation and amortization, Finance costs, Foreign exchange (gain)/loss, exceptional item and tax	7.6	8.5
Other Income	1.1	1.0
Profit before Depreciation and Amortization, Finance costs, Foreign exchange (gain)/loss, exceptional item and tax	8.7	9.5
Depreciation and Amortization	8.2	7.8
Finance costs	2.8	1.9
Foreign exchange loss (net)	0.7	0.3
Exceptional Item (gain)/loss (net)	1.1	9.9
Profit/(loss) before tax	(4.1)	(10.4)
Tax expense / (credit)	0.1	(0.8)
Profit/(loss) after tax	(4.2)	(9.6)

	FY 2019-20 (%)	FY 2018-19 (%)
Share of profits/(loss) of equity accounted investees (net)	(0.4)	0.1
Minority Interest	-	-
Profit/(loss) for the year	(4.6)	(9.5)
EBITDA	8.4	8.9
EBIT	(0.2)	1.2

EBITDA –is defined to include the product development expenses charged to P&L, revaluation of current assets and liabilities and realized FX and commodity hedges but excludes the revaluation of foreign currency debt, MTM on FX and commodity hedges, other income (except government grant) as well as exceptional items. EBIT is defined as reported EBITDA plus profit from equity accounted investee less depreciation and amortization.

Our total consolidated revenue from operations including finance revenue, decreased by 13.5% to ₹2,61,068 crores in FY 2019-20 from ₹3,01,938 crores in FY 2018-19. Revenue from the sale of vehicle decrease to ₹2,18,983 crores in FY 2019-20 as compared to ₹2,58,567 crores, decrease of 15.3%. We sold 9,61,463 vehicle in FY 2019-20, as compared to 1,274,072 vehicles in FY 2018-19.

The revenue of our Tata brand vehicles including vehicle finance decreased by 32.8% to ₹51,322 crores in FY 2019-20 from ₹76,418 crores in FY 2018-19, due to decreased volumes in all vehicle categories. The revenue from Tata commercial vehicle was ₹36,329 crores in FY 2019-20 as compared to ₹58,137 crores in FY 2018-19, a decrease of 37.5%. The revenue from Tata Passenger Vehicles was ₹10,482 crores in FY 2019-20 as compared to ₹14,470 crores in FY 2018-19, a decrease of 27.6%. Our revenues from sales of vehicles and spare parts manufactured in India decreased by 36.1% to ₹43,865 crores in FY 2019-20 from ₹68,621 crores in FY 2018-19.

The revenue from Passenger Cars in India decreased by 42.5% to ₹2,832 crores in FY 2019-20 from ₹4,922 crores in FY 2018-19 and Utility Vehicles decreased by 19.0% to ₹4,168 crores in FY 2019-20 from ₹5,143 crores in FY 2018-19. Further, revenues from MHCVs decreased by 53.1% to ₹14,006 crores in FY 2019-20 from ₹29,863 crores. ILCVs decreased by 25.8% to ₹3,693 crores in FY 2019-20 from ₹4,979 crores in FY 2018-19. Revenues of SCVs & Pickups in India decreased by 25.0% to ₹3,826 crores in FY 2019-20 from ₹5,101 crores in FY 2018-19 and CV Passenger Vehicles revenue decreased by 2.5% to ₹3,936 crores in FY 2019-20 from ₹4,038 crores in FY 2018-19.

Revenue attributable to TDCV, decreased by 21.1% to ₹3,134 crores in FY 2019-20 from ₹3,973 crores in FY 2018-19, primarily due to lower industry volumes, aggressive discounting and marketing strategies of importers and impact of COVID-19 pandemic in March 2020 quarter and reduction in the export sales in FY 2019-20.

Revenue from our Vehicle Financing operations increased by 16.1% to ₹4,295 crores in FY 2019-20, as compared to ₹3,700 crores in FY 2018-19. This is mainly due to increase in average loan book and upfront recognition of excess interest spread (EIS) on the direct assignment transaction undertaken during FY 2019-20 in TMFL.

The revenue of our Jaguar Land Rover business decreased by 6.9% to ₹2,08,040 crores in FY2019-20 from ₹2,23,514 crores in FY 2018-19. This was partially attributed to an unfavorable translation of ₹4,021 crores from GBP to Indian rupees in FY 2019-20. Excluding currency translation, the revenue of Jaguar Land Rover decreased by 5.1%. There was a decrease of 6.3% in sales volume of Jaguar Land Rover vehicle as compared to FY 2018-19. Out of which Jaguar brand vehicles sales were 1,25,820 units in FY 2019-20 from 1,53,757 units in FY 2018-19, a decrease of 18.2%, and Land Rover vehicles sales from 3,54,138 units in FY 2018-19 to 3,50,132 units in FY 2019-20, a decrease of 1.1% (volumes excluding the China Joint Venture).

Revenue from other operations (before inter-segment eliminations) decreased by 16.0% to ₹3,047 crores in FY 2019-20 compared to ₹3,626 crores in FY 2018-19. This is mainly on account of revenue of TAL Manufacturing Solutions Limited of ₹458 crores included in FY 2018-19, which was sold to Tata Advanced Systems Ltd. (TASL) on March 30, 2019.

Raw Materials, Components and Purchase of Products for Sale (including change in inventories of finished goods and work-in-progress) ('material costs')

Material costs decreased by 14.9% to ₹1,67,126 crores in FY 2019-20 from ₹1,96,321 crores in FY 2018-19, in line with reduction in revenue. As a percentage of revenue material costs are 64.0% in FY 2019-20, as compared to 65.0% in FY 2018-19.

Material costs for Tata Commercial Vehicles and Tata Passenger Vehicles decreased by 34.5% to ₹34,353 crores in FY 2019-20 from ₹52,444 crores in FY 2018-19, primarily due to a decrease in volumes. Further, material costs as a percentage of total revenue increased to 72.3% in FY 2019-20, as compared to 72.0% in FY 2018-19, primarily due to an unfavourable product mix leading to lower contribution margins.

For our India operations, material costs in the Passenger Vehicles segment decreased by 41.5% to ₹2,471 crores in FY 2019-20, as compared to ₹4,227 crores in FY 2018-19 for our Passenger Cars due to decreased sales. Utility Vehicles material costs decreased by 21.0% to ₹3,352 crores in FY 2019-20, as compared to ₹4,243 crores in FY 2018-19, mainly due to decreased volumes. Material costs for ILCVs decreased by 26.8% to ₹2,702 crores in FY 2019-20, as compared to ₹3,689 crores in FY 2018-19, and for MHCVs decreased by 49.4% to ₹10,688 crores in FY 2019-20, as compared to ₹21,103 crores in FY 2018-19. Material costs for SCVs & Pickups also decreased by 24.2% to ₹2,946 crores in FY 2019-20, as compared to ₹3,888 crores in FY 2018-19 and material costs for CV Passenger Vehicles marginally decreased to ₹3,222 crores in FY 2019-20, as compared to ₹3,235 crores in FY 2018-19. The decrease was due to lower volumes in FY 2019-20. Further, material costs as a percentage of revenue decreased to 66.9% in FY 2019-20, as compared to 68.8% in FY 2018-19.

Material costs decreased by 20.7% to ₹2,144 crores in FY 2019-20, as compared to ₹2,705 crores in FY 2018-19 for TDCV, primarily due to lower volumes, particularly in the domestic market. As a percentage of total revenue, material cost increased to 68.4% in FY 2019-20, compared to 68.1% in FY 2018-19, primarily due to product mix.

At our Jaguar Land Rover operations, material costs in FY 2019-20 decreased by 7.6% to ₹1,32,408 crores, from ₹1,43,349 crores in FY 2018-19. The decrease was partially offset by favourable currency translation from GBP to Indian rupees of ₹2,384 crores. Excluding currency translation, material costs attributable to our Jaguar Land Rover operations decreased by GB£986 million (6.3%) in FY 2019-20, mainly due to a 6.3% decrease in sales volume and product mix. Material costs at our Jaguar Land Rover operations as a percentage of revenue decreased to 63.9% in FY 2019-20, from 64.7% in FY 2018-19 (in GBP terms).

Employee Costs

Our employee costs decreased by 8.4% in FY 2019-20 to ₹30,439 crores from ₹33,244 crores in FY 2018-19, including the foreign currency translation impact from GBP to Indian rupees, discussed below.

Our permanent headcount decreased by 4.7% as at March 31, 2020 to 78,906 employees from 82,797 employees as at March 31, 2019, primarily due to voluntary early separations that commenced in Q4 FY 2018-19 at Jaguar Land Rover and at Tata Daewoo in FY 2019-20. The average temporary headcount has also decreased to 19,169 employees in FY 2019-20 from 31,647 employees in FY 2018-19, mainly due to reduction of volumes.

The employee costs for Tata Commercial Vehicles and Tata Passenger Vehicles decreased marginally by 1.0% to ₹5,767 crores in FY 2019-20 from ₹5,826 crores in FY 2018-19.

For our India operations, employee costs increased marginally to ₹4,807 crores in FY 2019-20 from ₹4,777 crores in FY 2018-19, mainly due to regular annual increases in salary and wage agreements at our various plants. The permanent headcount decreased by 6.3% as at March 31, 2020 to 39,012 employees from 41,655 employees as at March 31, 2019. The average temporary headcount decreased by 41.8% to 15,674 employees in FY 2019-20 from 26,913 employees in FY 2018-19, due to reduced volumes. At TML, the parent Company, employee cost increased to ₹4,384 crores in FY 2019-20 compared to ₹4,273 crores in FY 2018-19. The employee cost as a percentage of revenue increased to 10.0% in FY 2019-20 from 6.2% in FY 2018-19, mainly due to decreased revenues.

Employee costs at TDCV were decreased to ₹759 crores in FY 2019-20 as compared to ₹828 crores in FY 2018-19 primarily due to abolishment of certain overtime in FY 2019-20. Further, voluntary early separation was given in FY 2019-20.

The employee costs at Jaguar Land Rover decreased by 10.5% to ₹23,206 crores (GB£2,568 million) in FY 2019-20 from ₹25,931 crores (GB£2,820 million) in FY 2018-19, primarily due to leavers under the restructuring program that commenced in the fourth quarter of FY 2018-19. There were favourable foreign currency translation impact from GBP to Indian rupees of ₹435 crores. The employee costs as a percentage of revenue decreased to 11.2% in FY 2019-20 from 11.6% in FY 2018-19. Jaguar Land Rover headcount decreased by 5.1% as at March 31, 2020 to 39,590 employees from 41,710 employees as at March 31, 2019. Jaguar Land Rover average permanent headcount decreased by 2.6% in FY 2019-20 to 36,473 employees from 37,434 employees in FY 2018-19, whereas, the average temporary headcount decreased to 3,117 employees in FY 2019-20 from 4,276 employees in FY 2018-19.

Product development/Engineering expenses

Product development/Engineering expenses represent research costs and costs pertaining to minor product enhancements, refreshes and upgrades to existing vehicle models. These represented 1.6% and 1.4% of total revenues ₹4,188 crores and ₹4,225 crores for FY 2019-20 and FY 2018-19, respectively

Other Expenses

Other expenses decreased by 8.3% to ₹57,087 crores in FY 2019-20 from ₹62,238 crores in FY 2018-19. There was a favourable foreign currency translation of GBP to Indian rupees of ₹827 crores pertaining to Jaguar Land Rover. As a percentage of total revenues, these expenses marginally increased to 21.9% in FY 2019-20 from 20.6% in FY 2018-19. The major components of expenses are as follows:

(₹ In crores)

	FY 2019-20	FY 2018-19	% Change
Freight and transportation expenses	6,484	7,804	(16.9)
Works operation and other expenses	17,847	20,083	(11.1)
Publicity	7,614	8,730	(12.8)
Allowance for trade and other receivables, and finance receivables	763	534	42.9
Warranty and product liability expenses	10,885	11,891	(8.5)
Processing charges	1,070	1,634	(34.5)
Stores, spare parts and tools consumed	1,501	2,444	(38.6)
Power and fuel	1,265	1,586	(20.2)
Information technology/computer expenses	2,372	2,341	1.3
Engineering expenses	6,598	5,276	25.1
MTM (gain)/loss on commodity derivatives	688	(85)	(909.4)
TOTAL	**57,087**	**62,238**	

1. Freight and transportation expenses decreased by 16.9% to ₹6,484 crores in FY 2019-20, due to lower volumes of both at Jaguar Land Rover and Tata Motors Limited.
2. Our works operation and other expenses represented 6.8% and 6.7% of total revenue in FY 2019-20 and FY 2018-19, respectively. Other expenses mainly relate to volume-related expenses at Jaguar Land Rover and Tata Motors Limited. On absolute terms, the expenses decreased to ₹17,847 crores in FY 2019-20 from ₹20,083 crores in FY 2018-19. The decrease is also due to adoption of Ind AS 116 from April 1, 2019, resulting in lease rent expenses now recorded as part of depreciation and amortization and interest cost of ₹1,584 crores.
3. Publicity expenses were 2.9% of our total revenues both in FY 2019-20 and FY 2018-19. In addition to routine product and brand campaigns, we incurred expenses relating to new product introduction campaigns in FY 2019-20, namely the new Evoque, Defender plus Disco Sport and F-Type refreshes at Jaguar Land Rover, and the Altroz at our India operations.
4. The allowances for finance receivables related to Vehicle Financing segment. These mainly reflect provisions for the impairment of vehicle loans of ₹660 crores for FY 2019-20 as compared to ₹320 crores in FY 2018-19. In the current year, the Company has incurred higher write offs (full/partial) for stage 3 loans (overdue more than 90 days) for cases which are repossessed and sold or where there is no reasonable expectation of recoveries of the entire or a portion thereof of the customer loan balance. The allowances for trade receivables were ₹104 crores in FY 2019-20 as compared to ₹214 crores in FY 2018-19, due to better collections.
5. Warranty and product liability expenses represented 4.2% and 3.9% of our total revenues in FY 2019-20 and FY 2018-19, respectively. The warranty expenses at Jaguar Land Rover increased to GB£1,131 million (4.9% of the revenue) in FY 2019-20 as compared to GB£1,016 million (4.2% of revenue) in FY 2018-19, mainly due to higher level of warranty campaigns and updated estimates of cost. The increase of Jaguar Land Rover was primarily driven by higher level of warranty campaigns and due to TDV6 and updated estimates of costs in relation to existing campaigns during FY 2019-20. For Tata Motors' Indian operations, these represent 1.2% and 1.5% of the revenue for FY 2019-20 and FY 2018-19, respectively.
6. Engineering expenses increased by 25.1 % to ₹6,599 crores in FY 2019-20 representing 2.5% of total revenue as compare to

₹5,276 crores in FY 2018-19. This is mainly increase on account of expenses increased at Jaguar Land Rover. A significant portion of these costs are capitalized and shown under the line item "expenditure capitalized" discussed below.

Expenditure capitalized

This represents employee costs, stores and other manufacturing supplies and other work expenses incurred mainly toward product development projects. Considering the nature of our industry, we continually invest in the development of new products to address safety, emission and other regulatory standards. The expenditure capitalized decreased by 11.0% to ₹17,503 crores in FY 2019-20 from ₹19,660 crores in FY 2018-19. The decrease was netted by an unfavourable foreign currency translation impact from GBP to Indian rupees of ₹279 crores pertaining to Jaguar Land Rover.

Other income

There was other income of ₹2,973 crores in FY 2019-20, as compared to ₹2,965 crores in FY 2018-19, representing no major change.

- Interest income increased to ₹1,170 crores in FY 2019-20, compared to ₹786 crores in FY 2018-19, mainly increased on fixed deposit at both Tata Motors Limited and Jaguar Land Rover.
- Profit on sale of investments measured at fair value is ₹187 crores FY 2019-20 as compared to ₹128 crores in in FY 2018-19.
- Incentive from government has increased to ₹1,984 crores in FY 2019-20 as compared to ₹1,794 crores in FY 2018-19. Government incentive includes exports and other incentives of ₹613 crores and ₹1,371 crores received by foreign subsidiaries on Tax credit on qualifying expenditure for research and development in FY 2019-20.
- These were partially offset by MTM loss on investments fair valued at ₹389 crores in FY 2019-20 primarily driven by fair value reduction of Lyft investment at Jaguar Land Rover.

Depreciation and Amortization

Our depreciation and amortization expenses decreased by 9.2% in FY 2019-20, the breakdown of which is as follows:

(₹ in crores)

	FY 2019-20	FY 2018-19
Depreciation	10,610	12,201
Amortization	9,699	11,390
Amortization of Leased Assets (RTU)	1,116	-
Total	**21,425**	**23,591**

The decrease in depreciation and amortization expenses is mainly due to impairment recognized in third quarter of FY 2018-19, along with favourable foreign currency translation from GBP to Indian rupees of ₹326 crores pertaining to Jaguar Land Rover. This is partially offset by new product launches Evoque, Defender and Discovery sport launched by Jaguar Land Rover and Altroz launched by Tata Motors India operations. Amortization of Right of Use (ROU) assets done during FY 2019-20 on account of adoption of Ind AS 116.

Finance Cost (interest expenses)

Our interest expense (net of interest capitalized) increased by 25.8% to ₹7,243 crores in FY 2019-20 from ₹5,759 crores in FY 2018-19. As a percentage of total revenues, interest expense represented 2.8% and 1.9% in FY 2019-20 and FY 2018-19, respectively. The interest expense (net) for Jaguar Land Rover was GB£209 million (₹1,867 crores) in FY 2019-20, as compared to GB£111 million (₹990 crores) in FY 2018-19. The increase in interest expense primarily reflects interest accrued on the EU€500 million 5.875% senior notes and EU€500 million 6.875% senior notes issued in November 2019, offset by higher capitalized interest. For Tata Commercial Vehicles and Tata Passenger Vehicles, interest expense increased by 12.4% to ₹5,379 crores in FY 2019-20 from ₹4,776 crores in FY 2018-19, mainly due to higher borrowings partially offset by lower interest rates. For the Vehicle Financing business, interest expense increased by 17.5% to ₹3,079 crores in FY 2019-20 from ₹2,616 crores in FY 2018-19, mainly due to higher borrowings on account of increased business.

Foreign exchange (gain)/loss (net)

We had a net foreign exchange loss of ₹1,739 crores in FY 2019-20, compared to ₹906 crores in FY 2018-19.

- Jaguar Land Rover recorded an exchange loss of ₹1,252 crores in FY 2019-20, as compared to loss of ₹862 crores in FY 2018-19. There was a net exchange loss on senior notes and other borrowings of GB£135 million in FY 2019-20, as compared to a loss of GB£45 million in FY 2018-19, due to GBP weakening against USD and EUR in FY 2019-20. There was a gain of GB£20 million in FY 2019-20, as compared to a loss of GB£66 million in FY 2018-19, due to fluctuations in foreign currency exchange rates on derivatives contracts that are not hedge accounted and natural hedges of debt, mainly reflecting a stronger U.S. dollar and Euro. Furthermore, this also includes a loss on revaluation of other assets and liabilities of GB£23 million in FY 2019-20, as compared to a gain of GB£16 million in FY 2018-19.
- For India operations, we incurred a net exchange loss of ₹237 crores in FY 2019-20, as compared to ₹226 crores in FY 2018-19, mainly attributable to foreign currency denominated borrowings.
- There was a net exchange loss on revaluation of foreign currency loans at our subsidiary TML Holdings Pte. Limited of ₹253 crores in FY 2019-20, as compared to a gain of ₹180 crores in FY 2018-19.

Exceptional Item (gain)/loss (net)

(₹ in crores)

	FY 2019-20	FY 2018-19
Employee separation cost	436	1,371
Defined benefit pension plan amendment past service cost	-	148
Provision/write off/(reversal)(net) of impairment of capital work-in-progress and intangibles under development (net)	(73)	181
Provision of Impairment of Passenger Vehicle Business	1,419	-
Provision for Onerous Contracts	777	-
Provision/(reversal) for cost of closure of operation of a subsidiary	(66)	381
Provision for impairment in Jaguar Land Rover	-	27,838
Profit on sale of investment in a subsidiary Company	-	(377)
Provision for impairment in subsidiaries	353	-
Provision for loan given to Joint ventures	25	-
Others	-	109
Total	**2,871**	**29,651**

Employee separation cost

During the year ended March 31, 2020, Tata Daewoo Commercial Vehicles and Jaguar Land Rover has announced a voluntary redundancy programme and accordingly had a charge of ₹174 crores and ₹260 cores, respectively.

Defined benefit pension plan amendment past service cost

In FY 2018-19, the High Court in the United Kingdom ruled that pension schemes are required to equalize benefits for male and female members under the guaranteed minimum pension that members earned between May 17, 1990 and April 5, 1997. Based on this ruling, we reassessed our obligations under the existing Jaguar Land Rover pension plans and recorded an additional liability of ₹148 crores (GB£17 million).

Provision/write off/(reversal)(net) of impairment of capital work-in-progress and intangibles under development (net)

Exceptional amount of credit of ₹73 crores and debit of ₹181 crores during the year ended March 31, 2020 and 2019, respectively are related to write off/(reversal) of provision for impairment of certain capital work-in-progress and intangibles under development.

Provision of Passenger Vehicle Business

During the FY 2019-20 we performed an impairment assessment for the Passenger Vehicle segment of Tata Motors Limited which represent a separate cash-generating unit (CGU) for the Company as at March 31, 2020, due to market conditions. The recoverable value was determined by Fair Value less Cost of Disposal ('FVLCD'), which was higher than the Value in Use ('VIU') of the relevant assets of the CGU. The recoverable amount was lower than the carrying value of the CGU and this resulted in an impairment charge of ₹1,419 crores recognised as at March 31, 2020.

Provision for Onerous Obligations

During the quarter and year ended March 31, 2020, a provision of ₹777 crores has been recognized for certain supplier contracts, which have become onerous, as the Company estimates that it will procure lower quantities than committed and the costs will exceed the future economic benefit.

Provision/(reversal) for cost of closure of operation of a subsidiary

On July 31, 2018, we decided to cease current operations of Tata Motors (Thailand) Ltd. We will now address the Thailand market with a revamped product portfolio, suitable to the local market needs, delivered through a CBU distribution model. Accordingly, the relevant restructuring cost of ₹381 crores have been accounted during FY 2018-19. Basis the payments till March 31, 2020, there is a reversal of restructuring cost of ₹66 crores during FY 2019-20, basis actual cash outflow as compared to estimates done earlier.

Provision for impairment in subsidiaries

As a result of change in market conditions, the Company performed an impairment assessment for assets forming part of wholly owned subsidiaries Tata Motors European Technical Centre PLC (TMETC) and Trilix S.r.l (Trilix). The recoverable amount of these assets were estimated to be lower than their carrying value and this resulted in an impairment charge of ₹297 crores and ₹56 crores in TMETC and Trilix, respectively during the year ended March 31, 2020.

Provision for impairment in Jaguar Land Rover

In FY 2018-19, we took an impairment charge of ₹27,838 crores. We had assessed the recoverable amount of Jaguar Land Rover business, which represents a single CGU, as the higher of Fair Value less Cost of Disposal ('FVCLD') and VIU of the relevant assets of the CGU, due to weaker sales and profitability, changes in market conditions, especially in China, and technological disruptions.

Provision for loan given to Joint venture

During the year ended March 31, 2020, we created provision for loans given to certain Joint ventures.

Others

In FY 2018-19, the Company has entered into an agreement for transfer of its Defence undertaking, which had a value of ₹209 crores as at December 31, 2017 to Tata Advanced Systems Ltd. (transferee Company), for an upfront consideration of ₹100 crores and a future consideration of 3% of the revenue generated from identified Specialized Defence Projects for up to 15 years from FY 2019-20 subject to a maximum of ₹1,750 crores. The future consideration of 3% of revenue depends on future revenue to be generated from the said projects by the transferee Company. On account of the same, the Company had recognized a provision of ₹109 crores in FY 2018-19.

Tax expenses / (credit)

Our income tax expenses is ₹395 crores in FY 2019-20 from tax credit of ₹2,437 crores in FY 2018-19, resulting in consolidated effective tax rates of 3.7% and 7.8%, for FY 2019-20 and FY 2018-19, respectively.

Tax rates applicable to individual entities increased to 25.7% for FY 2019-20, as compared to 17.2% in FY 2018-19.

The reasons for significant differences in the Company's recorded income tax expenses of ₹395 crores in FY 2019-20, as compared to ₹2,437 crores in FY 2018-19, are mainly the following:

- During FY 2019-20, Tata Motors Limited, on a standalone basis, did not recognize a deferred tax asset, amounting to ₹2,922 crores on losses, due to the uncertainty of future taxable profit as compared to ₹188 crores of minimum alternate tax credit during FY 2018-19.
- Furthermore, during FY 2019-20, deferred tax assets totalling ₹270 crores, was not recognize in certain subsidiaries and joint operations of which ₹248 crores on tax losses due to the uncertainty of realisation and ₹22 crores on minimum alternate tax as compared to ₹286 crores in FY 2018-19, were not recognized in certain subsidiaries and joint operations due to uncertainty of realization. However, for certain of the subsidiaries and a joint operation, there was a utilization of unrecognized deferred tax assets of ₹324 crores in FY 2019-20, as compared to ₹702 crores in FY 2018-19.
- Income tax credit on undistributed earnings of subsidiaries was ₹86 crores in FY 2018-19, as compared to expense of ₹128 crores in FY 2018-19, mainly due to losses.
- The impact of change in the statutory tax rate is ₹397 crores in FY 2019-20 as compared to ₹454 crores in FY 2019-20 mainly related to Jaguar Land Rover.
- Additional deduction for patent, research and product development cost of ₹282 crores in FY 2019-20, as compared to ₹189 crores in FY 2018-19, was mainly due to reduction in Research and Development claims at Tata Motors Limited on a standalone basis.
- During FY 2018-19, previously recognized deferred tax assets were written down on account of impairment of Jaguar Land Rover business of ₹2,698 crores.

Profit/(loss) after tax

Our consolidated net loss in FY 2019-20, excluding shares of non-controlling interests, is ₹12,071 crores, reduced from net loss of ₹28,826 crores in FY 2018-19. However, loss before interest and tax of ₹555 crores in FY 2019-20 as compared to profit before interest and tax ₹3,625 crores in FY 2018-19.This was mainly the result of the following factors:

- A profit before other income, interest, foreign exchange gain/ (loss) (net), exceptional items and tax for Jaguar Land Rover of ₹594 crores in FY 2019-20 as compared to loss of ₹1,278 crores in FY 2018-19. The increase in profitability was mainly attributable to reduction in employee cost primarily due to voluntary early separations that commenced in Q4 FY 2018-19 and lower depreciation and amortization expense mainly due to impairment recognized in Q3 FY 2018-19.

- Earnings before other income, interest, foreign exchange gain/(loss) (net), exceptional items and tax for Vehicle Financing amounted to ₹2,855 crores in FY 2019-20, as compared to ₹2,302 crores in FY 2018-19. The increase is due to increase in average loan book and upfront recognition of Excess Interest Spread (EIS) on the direct assignment transaction undertaken during the FY 2019-20 in TMFL.

Offset by

- Loss before other income, interest, foreign exchange gain/(loss) (net), exceptional items and tax for Tata Commercial Vehicles amounted to ₹368 crores in FY 2019-20, as compared to earnings of ₹4,116 crores in FY 2018-19, primarily due to lower volumes and mix.

- Losses before other income, interest, foreign exchange gain/(loss) (net), exceptional items and tax for Tata Passenger Vehicles amounted to ₹2,868 crores in FY 2019-20, as compared to ₹1,388 crores in FY 2018-19, due to decreased sales volume in cars and Utility Vehicle segment.

Share of profit/(loss) of equity-accounted investees and non-controlling interests in consolidated subsidiaries, net of tax

In FY 2019-20, our share of equity-accounted investees reflected a loss of ₹1,000 crores, as compared to profit of ₹210 crores in FY 2018-19. Our share of profit (including other adjustments) in the China Joint Venture in FY 2019-20 was loss of ₹1,016 crores, as compared to profit of ₹101 crores in FY 2018-19. The losses were mainly due to decrease in volumes and lower tax rebates.

The share of non-controlling interests in consolidated subsidiaries was decreased to ₹96 crores in FY 2019-20 from ₹102 crores in FY 2018-19.

B. BALANCE SHEET

Below is a discussion of major items and variations in our consolidated balance sheet as at March 31, 2020 and 2019, included elsewhere in this Annual Report.

(₹ in crores)

		As at March 31,		Change	Translation of JLR	Net Change
		2020	2019			
ASSETS						
(a)	Property, plant and equipment and intangible assets	1,61,952	1,42,370	19,582	4,254	15,328
(b)	Goodwill	777	748	29	-	29
(c)	Investment in equity accounted investees	4,419	5,335	(916)	109	(1,025)
(d)	Financial assets	98,922	1,03,405	(4,483)	1,564	(6,047)
(e)	Deferred tax assets (net)	5,458	5,151	307	158	149
(f)	Current tax assets (net)	1,295	1,209	86	3	83
(g)	Other assets	11,647	9,801	1,846	275	1,571
(h)	Inventories	37,457	39,014	(1,557)	1,048	(2,605)
(i)	Assets classified as held-for-sale	194	162	32	-	32
	TOTAL ASSETS	**3,22,121**	**3,07,195**	**14,926**	**7,411**	**7,515**
EQUITY AND LIABILITIES						
	EQUITY	63,892	60,703	3,189	1,982	1,207
	LIABILITIES					
(a)	Financial liabilities:	2,12,456	1,98,463	13,993	4,141	9,852
(b)	Provisions	25,066	22,052	3,014	695	2,319
(c)	Deferred tax liabilities (net)	1,942	1,491	451	54	397
(d)	Other liabilities	17,725	23,468	(5,743)	509	(6,252)
(e)	Current tax liabilities (net)	1,040	1,018	22	30	(8)
	TOTAL LIABILITIES	**2,58,229**	**2,46,492**	**11,737**	**5,429**	**6,308**
	TOTAL EQUITY AND LIABILITIES	**3,22,121**	**3,07,195**	**14,926**	**7,411**	**7,515**

Our total assets were ₹3,22,121 crores and ₹3,07,195 crores as at March 31, 2020 and 2019, respectively. The increase by 4.9% in assets as at March 31, 2020 takes into account a favourable foreign currency translation from GBP into Indian rupees as described below.

Our total current assets decreased by ₹3,844 crores to ₹1,19,587 crores or 3.1% as at March 31, 2020, as compared to ₹1,23,431 crores as at March 31, 2019.

Cash and cash equivalents decreased by 14.3% to ₹18,468 crores as at March 31, 2020, compared to ₹21,560 crores as at March 31, 2019, which also includes an favourable foreign currency translation of ₹390 crores from GBP to Indian rupees. We hold cash and cash equivalents principally in Indian rupees, GBP, Chinese Renminbi, EURO and USD. Out of cash and cash equivalents as at March 31, 2020, Jaguar Land Rover held the GBP equivalent of ₹12,072 crores, which consists of surplus cash deposits for future use. As at March 31, 2020, we had short-term deposits of ₹14,829 crores, as compared to ₹10,574 crores as of March 31, 2019, an increase of 40.2%, reflecting an increase in the value of deposits invested over a term of three months or longer mainly at Jaguar Land Rover.

As at March 31, 2020, we had finance receivables, including the non-current portion (net of allowances for credit losses), of ₹31,079 crores, as compared to ₹33,625 crores as at March 31, 2019, a decrease of 7.6%, primarily due to slowdown in the Commercial Vehicles market in India, leading to lower disbursal of vehicle financing, which contributed to the decrease in net finance receivables. Gross finance receivables were ₹31,730 crores as at March 31, 2020, as compared to ₹34,458 crores as at March 31, 2019. Vehicle financing is integral to our automotive operations in India.

Trade receivables (net of allowance for doubtful receivables) were ₹11,173 crores as at March 31, 2020, representing a decrease of ₹7,824 crores or 41.2% over March 31, 2019. The decrease was partially offset by a favourable foreign currency translation of ₹252 crores from GBP to Indian rupees. Trade receivables at Tata and other brand vehicles (including vehicle finance) decreased by 52.1% to ₹3,102 crores as at March 31, 2020 from ₹6,474 crores as at March 31, 2019, primarily on account of lower sales volume due to the COVID-19 pandemic. The trade receivables of Jaguar Land Rover were ₹7,586 crores as at March 31, 2020, as compared to ₹12,064 crores as at March 31, 2019. The past dues for more than six months (gross) increased from ₹1,516 crores as at March 31, 2019 to ₹1,744 crores as at March 31, 2020. These mainly represent dues from government-owned transport undertakings and Passenger Vehicle dealers, for which we are pursuing recovery.

As at March 31, 2020, inventories were at ₹37,457 crores, compared to ₹39,014 crores as at March 31, 2019, a decrease of 4.0%. The decrease in finished goods inventory was ₹1,881 crores from ₹31,513 crores as at March 31, 2019 to ₹29,632 crores as at March 31, 2020, mainly due to a decrease in volumes at both Tata Motors India operations and Jaguar Land Rover business. This decrease was offset by a favourable currency translation of ₹1,048 crores from GBP to Indian rupees. In terms of number of days to sales, finished goods represented 42 inventory days in sales in FY 2019-20, as compared to 39 inventory days in FY 2018-19, mainly due to lower revenues.

Our investments (current and non-current investments) increased to ₹11,890 crores as at March 31, 2020 from ₹10,436 crores as at March 31, 2019, representing an increase of 13.9%. Our investments mainly comprise mutual fund and money market funds investments of ₹10,862 crores as at March 31, 2020, as compared to ₹8,966 crores as at March 31, 2019. Investments attributable to Jaguar Land Rover were ₹9,515 crores as at March 31, 2020, as compared to ₹8,368 crores as at March 31, 2019, an increase of 13.1%. Tata Motors Limited (Parent) on Standalone basis has investments in mutual funds of ₹885 crores as at March 31, 2020, as compared to ₹1,102 crores as at March 31, 2019.

Our other assets (current and non-current) increased by 18.8% to ₹11,646 crores as at March 31, 2020 from ₹9,801 crores as at March 31, 2019. The increase is mainly attributable to the UK defined benefit pension scheme at Jaguar Land Rover consequent to changes in actuarial assumptions causing the defined benefit schemes to move to a net asset position.

Our other financial assets (current and non-current) increased to ₹9,336 crores as at March 31, 2020 from ₹6,023 crores as at March 31, 2019. Derivative financial instruments (representing options and other hedging arrangements, mainly related to the Jaguar Land Rover business) increased to ₹4,682 crores as at March 31, 2020 from ₹2,147 crores as at March 31, 2019, predominantly due to the strengthening of the GBP compared to EURO and therefore the increasing fair value of derivative contracts. Margin money and cash collateral with banks and deposit with financial institutions increased to ₹1,537 crores as at March 31, 2020 from ₹829 crores as at March 31, 2019.

Income tax assets (both current and non-current) increased by 7.1% to ₹1,295 crores as at March 31, 2019 from ₹1,209 crores as at March 31, 2019 mainly increase at TMF Group.

Property, plants and equipment (net of depreciation) increased by 7.2% from ₹72,620 crores as at March 31, 2019 to ₹77,883 crores as at March 31, 2020. The increase is partly due to a favourable foreign currency translation of ₹1,860 crores from GBP to Indian rupees. After adjusting for the foreign currency translation impact, an increase of ₹4,088 crores is mainly includes gross addition of ₹5,255 crores for Discovery Sport tooling's and facilities and ₹2,100 crores for tooling's for Defender and addition in building of ₹2,822 crores at Jaguar Land Rover. This is partially offset by depreciation charged during the year for property, plant and equipment and impairment charges taken in Passenger Vehicle business at Tata Motors Limited.

The Company has adopted Ind AS 116 with modified retrospective approach, with effect from April 1, 2019. The Company has recognized ₹5,584 crores as Right of use assets and lease liability of ₹5,780 crores as on the date of transition i.e. April 1, 2019.

Goodwill as at March 31, 2020 was ₹777 crores, as compared to ₹748 crores as at March 31, 2019. The increase was attributable to favourable translation impact pertaining to software consultancy and the services of our subsidiary, Tata Technologies Limited.

Intangible assets increased by 13.0% from ₹61,212 crores as at March 31, 2019 to ₹69,195 crores as at March 31, 2020. This increase is mainly due to gross addition made to the tune of ₹13,320 crores includes major one being Defender 110, which is partially offset by amortization for the year of ₹9,699 crores and impairment charges taken in Passenger Vehicle business at Tata Motors Limited. This increase is also due to a favourable foreign currency translation of ₹2,000 crores from GBP to Indian rupees. As at March 31, 2020, there were product development projects in progress amounting to ₹27,023 crores as compared to ₹23,346 crores as at March 31, 2019.

Carrying value of investments in equity-accounted investees decreased by 17.2% to ₹4,419 crores as at March 31, 2020, from ₹5,335 crores as at March 31, 2019. The value of investments decreased mainly due to loss for the year FY 2019-20 as compared to profit for FY 2018-19 from the China Joint Venture.

A deferred tax asset (net) of ₹1,498 crores was recorded in our income statement and liabilities of ₹1,667 crores in other comprehensive income, which mainly includes ₹1,383 crores (including currency translation) toward post-retirement benefits and ₹288 crores toward cash flow hedges in FY 2019-20. The net deferred tax asset of ₹3,516 crores was recorded as at March 31, 2020 as compared to ₹3,660 crores as at March 31, 2019.

Accounts payable (including acceptances) were ₹66,398 crores as at March 31, 2020, as compared to ₹71,691 crores as at March 31, 2019, a decrease of 7.4%, reflecting a decrease in operations and unfavourable foreign currency translation of ₹1,759 crores from GBP to Indian rupees.

Other financial liabilities (current and non-current) were ₹40,402 crores as at March 31, 2020, as compared to ₹35,648 crores as at March 31, 2019 (net of a unfavourable currency translation impact of ₹761 crores), reflecting liabilities toward current maturities of long term borrowings, vehicles sold under repurchase arrangements, derivative instruments, and interest accrued but not due on loans and lease liabilities. Liability towards current maturities of long term borrowings increased to ₹19,132 crores as at March 31, 2020 from ₹15,034 crores as at March 31, 2019 mainly due to higher repayment of long term borrowings failing in FY2020-21 as compare to FY2019-20. Liability toward vehicles sold under repurchasing arrangements increased to ₹4,483 crores as at March 31, 2020 from ₹4,244 crores as at March 31, 2019, increased mainly due to unfavourable currency translation impact of ₹145 crores and balance due to increase in the repurchase business at Jaguar Land Rover. Derivative financial instruments (representing options and other hedging arrangements, mainly related to Jaguar Land Rover) an increased by 1.8% to ₹7,536 crores as at March 31, 2020 from ₹7,405 crores as at March 31, 2019.

Provisions (current and non-current) increased by 13.7% to ₹25,066 crores as at March 31, 2020 from ₹22,052 crores as at March 31, 2019. Provisions for warranties increased by 10.3% or ₹1,796 crores to ₹19,297 crores as at March 31, 2020, as compared to ₹17,501 crores as at March 31, 2019 mainly due to higher level of warranty campaign and goodwill warranty provisions (e.g. campaigns in China) including an unfavourable foreign currency translation impact of ₹624 crores from GBP to Indian rupees. Furthermore, provisions for residual risk for

Jaguar Land Rover increased to ₹1,637 crores as at March 31, 2020, compared to ₹363 crores as at March 31, 2019, due to deterioration in economic indicators and customer behaviour in a number of key markets (including the US, Canada, and Germany) places downward pressure on used vehicle prices for all OEMs.

Other liabilities (current and non-current) decreased by 24.5% to ₹17,725 crores as at March 31, 2020, as compared to ₹23,469 crores as at March 31, 2019. Employee benefit obligations decreased by 94.4% to ₹342 crores as at March 31, 2020, as compared to ₹6,110 crores as at March 31, 2019, mainly pertaining to the Jaguar Land Rover pension plan, consequent to changes in actuarial assumptions causing the defined benefit schemes to move to a net asset position.

Our total debt was ₹1,18,811 crores as at March 31, 2020, as compared to ₹1,06,175 crores as at March 31, 2019, an increase of 11.9%, including an unfavourable currency translation of ₹1,616 crores from GBP to Indian rupees. Short-term debt (including the current portion of long-term debt) marginally increased to ₹35,495 crores as at March 31, 2020, as compared to ₹35,184 crores as at March 31, 2019. Long-term debt (excluding the current portion) increased by 17.4% to ₹83,316 crores as at March 31, 2020 from ₹70,974 crores as at March 31, 2019. Long-term debt (including the current portion) increased by 19.1% to ₹102,448 crores as at March 31, 2020 as compared to ₹85,852 crores as at March 31, 2019.

Total equity was ₹63,892 crores as at March 31, 2020 and ₹60,703 crores as at March 31, 2019.

Equity attributable to Shareholders of Tata Motors Limited increased to ₹63,079 crores as at March 31, 2020 as compared to ₹60,180 crores as at March 31, 2019. This increase is mainly due to gain in pension reserve of ₹7,433 crores as compared to loss ₹2,174 crores, hedging reserve gain of ₹1,958 crores as compared to loss ₹1,158 crores, currency translation reserve gain of ₹2,322 crores as compared to loss of ₹2,069 crores, securities premium of ₹2,981 crores on pursuant to preferential allotment and issue of share warrants of ₹868 crores and reduction in losses of ₹12,071 crores as compared to ₹28,826 crores in FY 2019-20 and FY 2018-19, respectively.

C. CASH FLOW

The following table sets forth selected items from consolidated cash flow statement:

(₹ in crores)

	FY 2019-20	FY 2018-19	Change
Cash from operating activity	**26,633**	**18,891**	**7,742**
Profit/(Loss) for the year	(11,975)	(28,724)	
Adjustments for cash flow from operations	35,328	57,495	
Changes in working capital	5,065	(7,221)	
Direct taxes paid	(1,785)	(2,659)	
Cash used in investing activity	**(34,170)**	**(19,711)**	**(14,459)**
Payment for property, plant and equipment and other intangible assets (net)	(29,531)	(35,236)	
Net investments, short term deposit, margin money and loans given	(6,387)	14,532	
Dividend and interest received	1,748	993	
Net Cash from Financing Activities	**3,390**	**8,830**	**(5,440)**
Dividend Paid (including paid to minority Shareholders)	(57)	(95)	
Interest paid	(7,518)	(7,005)	

(₹ in crores)

	FY 2019-20	FY 2018-19	Change
Net Borrowings (net of issue expenses)	10,965	15,930	
Net increase / (decrease) in cash and cash equivalent	**(4,148)**	**8,010**	**(12,158)**
Cash and cash equivalent, end of the Year	**18,468**	**21,560**	
Free Cash flow	**(2,898)**	**(16,346)**	

Cash and cash equivalents decreased by ₹3,092 crores in FY 2019-20 to ₹18,468 crores from ₹21,560 crores in FY 2018-19, partially offset by a favourable currency translation of ₹390 crores from GBP to Indian rupees. The decrease in cash and cash equivalents (excluding currency translation) resulted from the changes to our cash flows in FY 2019-20 when compared to FY 2018-19 as described below. Net cash provided by operating activities totalled ₹26,633 crores in FY 2019-20, an increase of ₹7,742 crores, as compared to ₹18,891 crores in FY 2018-19.

The net loss is ₹11,975 crores in FY 2019-20 as compared to a loss of ₹28,724 crores in FY 2018-19. The cash flows from operating activities before changes in operating assets and liabilities resulted in a net income of ₹23,352 crores in FY 2019-20 from income of ₹28,771 crores in FY 2018-19. The changes in operating assets and liabilities resulted in a net inflow of ₹5,065 crores in FY 2019-20, as compared to outflow of ₹7,221 crores in FY 2018-19.

In FY 2019-20, the net inflow in vehicle finance receivables was ₹2,021 crores as compared to outflow of ₹9,744 crores in FY 2018-19.

For Tata Commercial Vehicles and Tata Passenger Vehicles there was an inflow of ₹591 crores in FY 2019-20 on account of changes in operating assets and liabilities, compared to an outflow of ₹317 crores in FY 2018-19, which was mainly attributable to an increase in other non-current assets by ₹485 crores.

For Jaguar Land Rover brand vehicles, there was a net inflow of cash on account of changes in operating assets and liabilities accounting to ₹2,462 crores in FY 2019-20, as compared to inflow of ₹3,154 crores in FY 2018-19. This is mainly due to higher trade payables in FY 2019-20 as compared to FY 2018-19.

Income tax paid has decreased to ₹1,785 crores in FY 2019-20, as compared to ₹2,659 crores in FY 2018-19, which was primarily attributable to tax payments by Jaguar Land Rover's foreign subsidiaries in their respective tax jurisdictions.

Net cash used in investing activities totalled ₹34,170 crores in FY 2019-20, as compared to ₹19,711 crores for FY 2018-19, an increase of ₹14,459 crores or 73.4%, mainly due to increase in deposits with banks and financial institutions mainly at Jaguar Land Rover.

The following table sets forth a summary of our cash flow on property, plants and equipment and intangible assets for the periods indicated.

(₹ in crores)

	FY 2019-20	FY 2018-19
Tata Commercial Vehicles and Tata Passenger Vehicles including financing	4,332	4,962
Jaguar Land Rover	2.5,139	30,214

In FY 2019-20, payments for capital expenditures at Jaguar Land Rover decreased by 16.8% to ₹25,139 crores from ₹30,214 crores in FY 2018-19. The capital expenditures were intended to support continued investment in new products at Jaguar Land Rover and manufacturing facilities in the United Kingdom, Austria and Slovakia.

Further, in FY 2019-20, payments for capital expenditures at Tata Commercial Vehicles and Tata Passenger Vehicles including financing decreased to ₹4,332 crores from ₹4,962 crores in FY 2018-19. These capital expenditure are related to new products under development, including BSVI.

Our net investment in short-term deposit margin moneys and loans resulted in an outflow of ₹6,387 crores in FY 2019-20, as compared to inflows of ₹14,532 crores in FY 2018-19. The cash outflow in FY 2019-20 of ₹4,992 crores as compare to inflow of ₹14,860 crores in FY 2018-19, mainly related to higher deposits and lower money market funds realized by Jaguar Land Rover.

Net cash inflow from financing activities totalled ₹3,390 crores in FY 2019-20, as compared to ₹8,830 crores in FY 2018-19. For Tata Commercial Vehicles and Tata Passenger Vehicles, the short-term debt decreased by ₹2,719 crores, whereas long-term debt (net) increased by ₹5,285 crores, due to additional borrowings. There was an decrease in debt (short-term and long-term) of ₹3,271 crores in FY 2019-20 at Vehicle Financing, as compared to increase of ₹10,461 crores in FY 2018-19. For Jaguar Land Rover, the short-term debt (net) decreased by ₹1,027 crores and long-term debt (net) increased by ₹6,894 crores in FY 2019-20, due to new borrowings in FY 2019-20.

Interest paid (including discounting charges) was ₹7,518 crores in FY 2019-20, as compared to ₹7,005 crores in FY 2018-19. For Jaguar Land Rover, interest paid was ₹1,863 crores n in FY 2018-19, as compared to ₹1,909 crores in FY 2018-19. For Tata Commercial Vehicles and Tata Passenger Vehicles, interest paid was ₹2,568 crores in FY 2019-20, as compared to ₹2,577 crores in FY 2018-19. For Vehicle Financing, interest paid was ₹3,085 crores in FY 2019-20 as compared to ₹2,505 crores in FY 2018-19.

D. KEY FINANCIAL RATIOS

The details of significant changes (25% or more) in the key financial ratios in FY 2019-20 compared to 2018-19 is as follows:

	FY 2019-20	FY 2018-19	Formula used	Reason for change
Interest coverage ratio (in times)	0.04	0.66	EBIT / Interest expense	Due to higher Interest cost and lower sales at both Tata motors and Jaguar Land Rover, the interest coverage ratio is low.
Net profit margin (%)	(5)	(10)	Net Profit / Revenue from operation	Due to subdued business performance at both Tata Motors Limited and Jaguar Land Rover in FY 2019-20. We have taken an impairment charge and provision for onerous contract of ₹2,549 crores for Passenger Vehicle segment in FY 2019-20 as compare to ₹27,838 crores in FY 2018-19. There has been a loss resulting into negative net profit margin.

E. LIQUIDITY AND CAPITAL RESOURCES

We finance our capital expenditures and research and development investments through cash generated from operations, cash and cash equivalents, and debt and equity funding. We also raise funds through the sale of investments, including divestments in stakes of subsidiaries on a selective basis.

The key element of the financing strategy is maintaining a strong financial position that allows us to fund our capital expenditures and research and development investments efficiently even if earnings are subject to short-term fluctuations. Our treasury policies for liquidity and capital resources are appropriate for automotive operations and are set through business specific sensitive analysis and by benchmarking our competitors. These are reviewed periodically by the Board.

Our business segments are (i) automotive operations and (ii) all other operations. We provide financing for vehicles sold by dealers in India. Our automotive operations segment is further divided into Tata Commercial Vehicles, Tata Passenger Vehicles, Jaguar Land Rover and Vehicle Financing. Furthermore, given the nature of our industry and competition, we are required to make significant investments in product development on an ongoing basis.

(i) Principal Sources of Funding Liquidity

Our funding requirements are met through a mixture of equity, convertible or non-convertible debt securities and other long- and short-term borrowings. We access funds from debt markets through commercial paper programs, convertible and non-convertible debentures, and other debt instruments. We regularly monitor funding options available in the debt and equity capital markets with a view to maintain financial flexibility.

See Note 41 to our audited consolidated financial statements included elsewhere in this Annual Report for additional disclosures on financial instruments related to liquidity, foreign exchange and interest rate exposures and use of derivatives for risk management purposes.

The following table sets forth our short- and long-term debt position:

(₹ in crores)

	As of March 31, 2020	As of March 31, 2019
Short-term debt (excluding current portion of long-term debt)	16,363	20,150
Current portion of long-term debt	19,132	15,034
Long-term debt net of current portion	83,316	70,818
Total Debt	**1,18,811**	**1,06,002**

During FY 2019-20 and FY 2018-19, the effective weighted average interest rate on our long-term debt was 5.9% and 6.9% per annum, respectively. The following table sets forth a summary of long-term debt (including current maturities of long-term borrowings) outstanding as of March 31, 2020.

Details of Long-term debt	Currency	Initial Principal amounts (millions)	Redeemable on	Interest Rate	Amount repaid during FY 2019-20 (₹ crores)	Outstanding (₹ crores) 31-Mar-20	Outstanding (₹ crores) 31-Mar-19
Non-convertible debentures	₹			Various	3,871	11,899	12,779
Collateralized debt obligations	₹			Various	2,593	4,230	3,047
Buyers credit from bank	Various			Various	25	3,975	2,500
Loan from banks / financial institutions	Various			Various	3,710	37,051	28,153
Compulsory convertible Preference shares	₹			8.780%		789	787

Details of Long-term debt	Currency	Initial Principal amounts (millions)	Redeemable on	Interest Rate	Amount repaid during FY 2019-20 (₹ crores)	Outstanding (₹ crores)	
						31-Mar-20	31-Mar-19
Others							300
Senior Notes							
Tata Motors Limited	US$	250	due 2024	5.750%		1,862	1,719
Tata Motors Limited	US$	300	due 2025	5.875%		2,270	-
Jaguar Land Rover	US$	500	due 2023	5.625%		3,775	3,446
Jaguar Land Rover	GB£	400	due 2023	3.875%		3,726	3,601
Jaguar Land Rover	GB£	400	due 2022	5.000%		3,725	3,597
Jaguar Land Rover	US$	500	due 2027	4.500%		4,235	3,459
TML Holdings Pte. Limited	US$	300	due 2021	5.750%		2,268	2,079
Tata Motors Limited	US$	500	due 2020	4.625%		1,986	1,805
Jaguar Land Rover	US$	500	due 2020	3.500%	3,632	-	3,469
Jaguar Land Rover	US$	500	due 2019	4.250%	3,574	-	3,471
Jaguar Land Rover	GB£	500	due 2024	5.875%		4,139	-
Jaguar Land Rover	GB£	300	due 2021	2.750%		2,800	2,704
Jaguar Land Rover	EU€	650	due 2024	2.200%		5,398	5,037

Details of Long-term debt	Currency	Initial Principal amounts (millions)	Redeemable on	Interest Rate	Amount repaid during FY 2019-20 (₹ crores)	Outstanding (₹ crores)	
						31-Mar-20	31-Mar-19
Jaguar Land Rover	EU€	500	due 2026	4.500%		4,101	3,899
Jaguar Land Rover	GB£	500	due 2026	6.875%		4,219	-
Total Long-term debt						**1,02,448**	**85,852**

The following table sets forth a summary of the maturity profile for our outstanding long-term debt obligations (including current maturities of long term borrowings) as of March 31, 2020.

Payments Due by Period[1,2]	(₹ in crores)
Within one year	24,073
After one year and up to two years	21,428
After two year and up to five years	54,775
After five year and up to ten years	20,570
Total	**1,20,849**

1. Including interest.
2. As of March 31, 2020, Jaguar Land Rover's long-term debt obligations were senior notes and bank loans of ₹49,961crores.

The following table sets forth our total liquid assets, namely cash and cash equivalents, short-term deposits and investments in mutual funds and money market funds (under other Investment—Current):

(₹ in crores)

	As of March 31,	
	2020	2019
Total cash and cash equivalent	18,468	21,560
Total short-term deposits	14,829	10,574
Total mutual fund and money market fund investments	10,862	8,937
Total liquid assets	**44,159**	**41,071**

These resources enable us to address business needs in the event of changes in credit market conditions. Of the above liquid assets, Jaguar Land Rover held ₹34,273 crores and ₹34,170 crores as of March 31, 2020 and 2019, respectively. Most of Jaguar Land Rover's liquid assets are maintained in GBP, US$ and EUR with smaller balances maintained in RMB and other currencies to meet operational requirements in those geographic regions.

We expect to invest over ₹24,900 crores in property, plants and equipment and product development during FY 2020-21.

We will continue to invest in new products and technologies to meet consumer demand and regulatory requirements and in our manufacturing base in the United Kingdom and overseas. Jaguar Land Rover has invested around GB£1 billion in its manufacturing facility in Nitra, Slovakia with annual capacity of 150,000 units which opened in October 2018 and is currently producing the Land Rover Discovery and the all new Land Rover Defender (more recently from January 2020). Jaguar Land Rover has also invested around GB£1 billion in its engine manufacturing facility in Wolverhampton, which produces 4 cylinder 2.0-Litre Ingenium diesel and gasoline engines as well as the new 6 cylinder 3.0-litre gasoline engine. In January 2019, Jaguar Land Rover announced that next-generation EDUs, will be produced at the Company's EMC in Wolverhampton and in June 2019 Jaguar Land Rover announced that it will develop these next generation EDU's in collaboration with BMW. In January 2019, Jaguar Land Rover also announced that these EDUs will be powered by batteries assembled at a new Jaguar Land Rover Battery Assembly Centre located at Hams Hall, North Warwickshire. We expect that these investments, together with our other investment will enable us to pursue further growth opportunities and address competitive positioning. We expect to satisfy our investments out of operating cash flows and cash liquidity available to us as well as additional funding through loans and other debt from time to time, as necessary.

Auto Free Cash Flow (cash flow from operating activities less payment for property, plant and equipment and intangible assets less cash flow of TMF Group i.e financing business) on consolidated basis was negative at ₹(9,205) crores compared to ₹(9,168) crores in FY 2018-19. With structural cost reduction and capex rationalization plans in pipeline, we expect to improve cash flows in the future.

The following table provides information for the credit rating of Tata Motors Limited for short-term borrowing and long-term borrowing from the following rating agencies as of March 31, 2020: Credit Analysis & Research Limited ('CARE'), Information and Credit Rating Agency of India Ltd. ('ICRA Limited" or "ICRA'), Credit Rating Information Services of India Ltd. ('CRISIL Ltd." or "CRISIL'), Standard & Poor's Ratings Group ('S&P') and Moody's Investors Service ('Moody's'). A credit rating is not a recommendation to buy, sell or hold securities. A credit rating may be subject to withdrawal or revision at any time. Each rating should be evaluated separately of any other rating. The credit rating of Tata Motors as at March 31, 2020 was as follows.

Rating agency	Long-term borrowings	Short-term borrowings
CARE	AA- / Negative	A1+
ICRA	AA- / Negative	A1+
CRISIL	AA- / Negative	A1+
S&P	B+ / Negative	-
Moody's	Ba3 / Under Review	-

Subsequently, In April 2020, S&P revised credit rating of Tata Motors to B / Stable.

As at March 31, 2020, JLR's rating was "B1"/Under review by Moody's ,"B+"/Negative by Standard & Poor's at and "BB-"/Negative by Fitch. Subsequently both S&P and Fitch revised JLR's credit rating to "B"/ Negative in April 2020 and May 2020 respectively.

As at March 31, 2020, for TMFHL and its subsidiaries, CRISIL and ICRA rating on long- term debt instruments and long term bank facilities stood at "AA -/ Negative", while CARE rating on long term debt and long term bank facilities stood at CARE AA -/Negative.

We believe that we have sufficient liquidity available to meet our planned capital requirements. However, our sources of funding could be materially and adversely affected by an economic slowdown, as was witnessed in FY 2008-09, arising due to COVID-19 or other macroeconomic factors in India, the United Kingdom, the United States, Europe or China, which are beyond our control. A decrease in the demand for our vehicles could affect our ability to obtain funds from external sources on acceptable terms or in a timely manner.

The COVID-19 pandemic and resulting lockdowns resulted in a sharp drop in sales first in China in late January and in other regions in late March with a peak sales decrease in April and May 2020. The Company responded quickly to the COVID-19 pandemic with temporary plant shutdowns and rigorous cost and investment controls to conserve cash as much as possible. The China Joint Venture production plant was shut down in late January and reopened in late February 2020. All plants outside of China were shutdown from late March with most plants restarting from late May and production is expected to gradually increase as sales recover. As a result of the impact of COVID-19 pandemic on sales and production, the Group had negative free cash in April and May 2020. This is contributed by unwinding of working capital resulting from the plant shutdowns and payments to suppliers for vehicles built before plant shutdowns, which are offset partially by the sale of vehicles in inventory. Given the significant uncertainties arising out of the COVID-19 pandemic, we assessed the cash flow projections and available liquidity for a period of twenty four months from the date of these financial statements. Based on this evaluation, our management believes that the Company will be able to continue as a 'going concern' in the foreseeable future. For further details kindly refer note 2 (e) in Significant accounting policies forming part of consolidated financial statement.

Our cash is located in various subsidiaries. The cash in some of these jurisdictions, notably South Africa and Brazil, is subject to certain restrictions on cash pooling, interCompany loan arrangements or interim dividends. However, annual dividends are generally permitted, and we do not believe that these restrictions have, or are expected to have, any impact on our ability to meet our cash obligations.

Long-term funding

In order to refinance our existing borrowings and support our long-term funding needs, we continued to raise funds during FY 2018-19 and FY 2019-20. Details of major funding during FY 2018-19 through FY 2019-20 are provided below.

During FY 2018-19, Tata Motors Limited raised unsecured term loans amounting to ₹1,500 crores from banks for ongoing capital-spending requirements. Tata Motors Limited successfully completed a liability management exercise by the part-refinancing of US$500 million notes due for repayment on April 30, 2020. The Company raised ECB of US$237.468 million maturing in June 2025, which was used to repay the investors, who had surrendered their bonds through the tendering process.

In September 2018, Jaguar Land Rover Automotive Plc issued EUR500 million senior notes due 2026 at a coupon interest of 4.500% per annum. The proceeds were for general corporate purposes, including support for Jaguar Land Rover's ongoing growth and capital spending requirements.

In October 2018, Jaguar Land Rover Automotive Plc signed a loan agreement with a syndicate of banks for US$1 billion and has drawn down the full amount. The loan has a final maturity on January 31, 2025, with 20% amortizing on October 31, 2022. The proceeds were for general corporate purposes, including support for Jaguar Land Rover's ongoing growth and capital spending requirements.

In December 2018, the US$700 million senior notes with a coupon interest of 4.125% issued by Jaguar Land Rover Automotive Plc in December 2013 matured and were fully repaid.

During FY 2018-19, TMFHL and its subsidiaries, TMFL and TMFSL, raised ₹2,066 crores (face value) by issuing NCDs. Bank borrowings through secured term loans continued to be a major source of funds for long-term borrowing and raised ₹6,306 crores during FY 2018-19.

During FY 2019-20, Tata Motors Limited allotted 20,16,23,407 Ordinary Shares at a price of ₹150 per Ordinary Share aggregating to ₹3,024 crores and 23,13,33,871 Convertible Warrants ('Warrants'), each carrying a right to subscribe to one Ordinary Share per Warrant, at a price of ₹150 per Warrant ('Warrant Price'), aggregating to ₹3,470 crores on a preferential basis to Tata Sons Private Limited. An amount equivalent to 25% of the Warrant Price was paid at the time of subscription and allotment of each Warrant and the balance 75% of the Warrant Price shall be payable by the Warrant holder against each Warrant at the time of allotment of Ordinary Shares pursuant to exercise of the options attached to Warrant(s) to subscribe to Ordinary Share(s). The warrants can be exercised within 18 months from the date of allotment. The amount of ₹3,892 crores has been received and is to be utilized for repayment of debt, meeting future funding requirements and other general corporate purposes of the Company and its subsidiaries. The Company has utilised amount of ₹2,762 crores as at March 31, 2020.

During FY 2019-20, the Tata Motors raised unsecured term loans amounting to ₹1,500 crores from Banks for general corporate purpose and funding capital requirements. Tata Motors Limited raised unsecured, rated, listed NCD's amounting to ₹1,000 crores for utilisation towards capital expenditure including intangibles, refinancing of existing indebtedness and other general corporate purpose. In November 2019, Tata Motors Limited issued US$300 million bonds due 2025 at coupon rate of 5.875% for funding capital requirements and other permitted use as per ECB guidelines.

In October 2019 Jaguar Land Rover Automotive plc completed and drew down in full a £625 million five-year amortizing loan facility backed by a £500 million guarantee from UK Export Finance (UKEF). In addition, the Company signed a new £100 million working capital facility for fleet buybacks in October 2019, fully drawn in November 2019.

In November 2019, Jaguar Land Rover Automotive Plc issued €500 million senior notes due in 2024 at a coupon of 5.875% per annum and €300 million senior notes due in 2026 at a coupon of 6.875% per annum and an additional €200 million of senior notes in December 2019 due in 2026 also at a coupon of 6.875% per annum (the €300 million and €200 million senior notes due in 2026 are part of the same series of senior notes). The proceeds were for general corporate purposes, including support for Jaguar Land Rover's ongoing growth and capital spending requirements

In November 2019, the US$500 million senior notes with a coupon of 4.250% issued by Jaguar Land Rover Automotive Plc in November 2014 matured and were fully repaid.

In March 2020, the US$500 million senior notes with a coupon of 3.500% issued by Jaguar Land Rover Automotive Plc in March 2015 matured and were fully repaid. In addition, in March 2020 £52 million of the loan by a guarantee from UK Export Finance (UKEF) amortized and was repaid with £573 million of the loan outstanding at 31 March 2020.

During FY 2019-20, TMFHL and its subsidiaries, raised ₹2,270 crores by issuing NCDs (including Sub Debt and Perpetual NCDs). Total issuance through Sub Debt and Hybrid Perpetual NCDs was ₹550 crores. Bank borrowings including ECB's continued to be a major source of funds for long-term borrowing and raised ₹4,320 crores during FY 2019-20.

Post March 31, 2020, Tata Motors Limited raised ₹1,000 crores through secured, rated, listed NCD's and JLR Jaguar Land Rover (China) Investment Co. Ltd. has signed a RMB 5 billion (about £560 million) unsecured 3 year revolving loan facility with a syndicate of 5 Chinese banks.

We plan to refinance and raise long-term funding through borrowings or equity issuances, on the basis of review of business plans, operating results and covenant requirements of our existing borrowings.

Short-term funding

We fund our short-term working capital requirements with cash generated from operations, overdraft facilities with banks, short- and medium-term borrowings from lending institutions, banks and commercial paper. The maturities of these short-term and medium-term borrowings and debentures are generally matched to particular cash flow requirements. We had borrowings of ₹16,363 crores and ₹20,150 crores as of March 31, 2020 and 2019, respectively.

Our working capital limit for our India operations is ₹10,000 crores. The working capital limit is secured by hypothecation of existing current assets of Tata Motors Limited, including stock of raw material, stock in process, semi-finished goods, stores and spares not relating to plants and machinery (consumable stores and spares), bills receivables and book debts, including vehicle financing receivables and all other moveable current assets, except cash and bank balances, loans and advances of Tata Motors Limited, both present and future. The working capital limit is renewed annually for Tata Motors Limited. Tata Motors Limited currently has ₹1,500 crores revolving credit facility which remained undrawn as of March 31, 2020.

As of March 31, 2020, Jaguar Land Rover Limited had sold receivables of GB£392 million equivalent under their US$700 million committed invoice discounting facility. Under the terms of this facility receivables are accounted as sold (through trade receivables in working capital) and therefore not accounted as debt under Ind AS. GB£114 million was repaid against a previous working capital facility (accounted as debt) that matured within Fiscal 2020. In November 2019 Jaguar Land Rover Limited drew down (fully) on a new GB£100 million secured working capital facility for fleet buybacks.

At March 31, 2020 he unutilised working capital limits for Tata Motors Limited were at ₹4,803 crores. The unutilised revolving credit facility amounted to ₹1,500 crores. For Jaguar Land Rover the unutilised revolving credit facility was GB£1,935 million.

Loan Covenants

Some of our financing agreements and debt arrangements set limits on and/or require prior lender consent for, among other things, undertaking new projects, issuing new securities, changes in management, mergers, sales of undertakings and investments in subsidiaries. In addition, certain negative covenants may limit our ability to borrow additional funds or to incur additional liens, and/or provide for increased costs in case of breach. Certain financing arrangements also include financial covenants to maintain certain debt-to-equity ratios, debt-to-earnings ratios, liquidity ratios, capital expenditure ratios and debt coverage ratios.

We monitor compliance with our financial covenants on an ongoing basis. We also review our refinancing strategy and continue to plan for deployment of long-term funds to address any potential non-compliance.

Certain debt issued by Jaguar Land Rover is subject to customary covenants and events of default, which include, among other things, minimum liquidity requirement in the case of the UKEF facility, restrictions or limitations on the amount of cash that may be transferred outside of the Jaguar Land Rover Group in the form of dividends, loans or investments to TML and its subsidiaries. These are referred to as "restricted payments" in the relevant Jaguar Land Rover financing documentation. In general, the amount of cash which may be transferred as restricted payments from the Jaguar Land Rover Group to the Company and its subsidiaries is limited to 50% of its cumulative consolidated net income (as defined in the relevant financing documentation) from January 2011. As of March 31, 2020, the estimated amount that is available for distributions was approximately GB£4.3 billion.

(ii) Capital Expenditures

Capital expenditures totalled ₹31,222 crores and ₹ 36,636 crores during FY 2019-20 and FY 2018-19, respectively. Our automotive operations accounted for a majority of such capital expenditures. We currently plan to invest over ₹24,900 crores in FY 2020-21 in new products and technologies.

Our capital expenditures in India during FY 2019-20 related mostly to (i) the introduction of new products, such as the Tata Altroz, Nexon EV, Tata Harrier facelift version 2020 (ii) the development of planned future products and technologies, and (iii) quality and reliability improvements aimed at reducing operating costs.

Capital expenditures for Jaguar Land Rover mainly included expenditures for the global launches of the all-new Land Rover Defender, the refreshed Land Rover Discovery Sport, the refreshed Jaguar XE and the refreshed Jaguar F-TYPE, product development costs for various other future products and other investments manufacturing and technology including the production of the new 6 cylinder Ingenium 3.0-litre gasoline engine and the development and manufacture of next generation EDU's at the EMC in Wolverhampton, UK as wells as to support battery assembly at Jaguar Land Rover's plant located at Hams Hall, in North Warwickshire in the UK.

Jaguar Land Rover opened a manufacturing plant for the China Joint Venture in Changshu, China in October 2014 and began manufacturing the Range Rover Evoque there shortly thereafter. Manufacture of the Land Rover Discovery Sport commenced in the third quarter of FY 2015-16, followed by the long wheel-base Jaguar XFL in the first half of FY 2016-17, which went on sale in September 2016 and the long wheel-base Jaguar XEL which went on sale in December 2017 and more recently the Jaguar E-PACE which went on sale from the China Joint Venture in September 2018. Jaguar Land Rover and Chery invested approximately RMB10.9 billion in the first phase of the project, which was used to establish the manufacturing plant, a research and development centre and an engine production facility. Jaguar Land Rover invested approximately RMB3.5 billion of equity capital in the China Joint Venture, representing 50% of the share capital and voting rights of the joint venture Company. Additional manufacturing capacity has since been added. In FY 2019-20, a GB£67 million equivalent dividend was received from the China Joint Venture which was immediately re-invested into the China joint venture.

We continue to focus on development of new products for our various markets. Through Jaguar Land Rover, we continue to make investments in new technologies through its research and development activities to develop products that meet the requirements of the premium market, including developing sustainable technologies to improve fuel economy and reduce carbon dioxide emissions, such as the application of PHEVs, now available in the Range Rover and Range Rover Sport with PHEV's versions of the Range Rover Evoque and Land Rover Discovery Sport recently launched, and battery electric technologies, as applied in Jaguar Land Rover's first battery electric vehicle and the Jaguar I-PACE.

We intend to continue investing in our business units and research and development over the next several years, including capital expenditures for our ongoing projects, new projects, product development prog, mergers, acquisitions and strategic alliances in order to build and expand our presence in the Passenger Vehicle and Commercial Vehicle categories.

F. CRITICAL ACCOUNTING POLICIES

The preparation of financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income, expenses and disclosures of contingent assets and liabilities as of the date of this Annual Report and the reported amounts of revenues and expenses for the years presented. The actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis and on each balance sheet date. Revisions to accounting estimates are recognized in the period in which the estimate is revised and future periods are affected.

In particular, information about significant areas of estimation uncertainty and critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the financial statements are included in the following notes:

Impairment of Goodwill

CGUs to which goodwill is allocated are tested for impairment annually on each balance sheet date, or more frequently when there is an indication that the unit may be impaired. If the recoverable amount of the CGU is less than the carrying amount of the unit, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to that unit and then to the other assets of the unit pro rata on the basis of carrying amount of each asset in the unit. Goodwill impairment loss recognized is not reversed in subsequent period.

Impairment

Property, plants and equipment and intangible assets

On each balance sheet date, we assess whether there is any indication that any property, plants and equipment and intangible assets with finite lives may be impaired. If any such impairment exists, the recoverable amount of an asset is estimated to determine the extent of impairment, if any. Where it is not possible to estimate the recoverable amount of an individual asset, we estimate the recoverable amount of the CGU to which the asset belongs.

Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment annually on each balance sheet date, or earlier if there is an indication that the asset may be impaired.

The recoverable amount is the higher of fair value less costs to sell and VIU. In assessing VIU, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or CGU) is estimated to be less than its carrying amount, the carrying amount of the asset (or CGU) is reduced to its recoverable amount. If this occurs, an impairment loss is recognized immediately in the profit and loss account.

Finance receivables

We provide allowances for credit losses in finance receivables based on historical loss experience, current economic conditions and events, and the estimated collateral values for repossessed vehicles. This requires estimates, including the amounts and timing of future cash flows expected to be received, which reflect changes in related observable data from period to period that may be susceptible to changes.

Capitalization of internally generated intangible assets

We undertake significant levels of research and development activity and for each vehicle program periodic review is undertaken. We apply judgement in determining at what point in a vehicle prog lifecycle that recognition criteria under accounting standards is satisfied.

Product Warranty

Vehicle warranties are provided for a specified period of time. Our vehicle warranty obligations vary depending upon the type of the product, geographical location of its sale and other factors.

The estimated liability for vehicle warranties is recorded when the products are sold. These estimates are established using historical information on the nature, frequency and average cost of warranty claims and our estimates regarding possible future incidence based on actions on product failures.

Changes in warranty liability as a result of changes in estimated future warranty costs and any additional costs in excess of estimated costs can materially affect our net income. Determination of warranty liability is based on the estimated frequency and amount of future claims, which are inherently uncertain. Our policy is to regularly monitor warranty liabilities to determine the adequacy of our estimate of such liabilities. Actual claims incurred in the future may differ from our original estimates, which may materially affect warranty expenses.

Employee Benefits

Employee benefit costs and obligations are dependent on assumptions used in calculating such amounts. These assumptions include salary increases, discount rates, health care cost trend rates, benefits earned, interest costs, expected return on plan assets, mortality rates and other factors.

While we believe that the assumptions used are appropriate, differences in actual experience or changes in assumptions may affect our employee benefit costs and obligations.

Recoverability/recognition of deferred tax assets

Deferred tax assets and liabilities are recognized for the future tax consequences of temporary differences between the carrying values of assets and liabilities and their respective tax bases, and unutilized business loss and depreciation carry-forwards and tax credits. Such deferred tax assets and liabilities are computed separately for each taxable entity and for each taxable jurisdiction. Deferred tax assets are recognized to the extent that it is probable that future taxable income will be available against which the deductible temporary differences, unused tax losses, depreciation carry-forwards and unused tax credits could be utilized.

INTERNAL CONTROL SYSTEMS AND THEIR ADEQUACY

We have an adequate system of internal controls in place. We have documented policies and procedures covering all financial and operating functions. These controls have been designed to provide a reasonable assurance with regard to maintaining of proper accounting controls for ensuring reliability of financial reporting, monitoring of operations, and protecting assets from unauthorized use or losses, compliances with regulations. We have continued our efforts to align all of our processes and controls with global best practices.

Some significant features of the internal control of systems are:

- The Audit Committee of the Board of Directors, comprising of independent directors and functional since August 1988, regularly reviews the audit plans, significant audit findings, adequacy of internal controls, compliance with accounting standards as well as reasons for changes in accounting policies and practices, if any;
- Documentation of major business processes and testing thereof including financial closing, computer controls and entity level controls, as part of compliance programme towards Sarbanes-Oxley Act, as required by the listing requirements at New York Stock Exchange;
- An ongoing programme, for the reinforcement of the Tata Code of Conduct is prevalent across the organisation. The Code covers integrity of financial reporting, ethical conduct, regulatory compliance, conflicts of interest's review and reporting of concerns.
- State-of-the-art Enterprise Resource Planning, supplier relations management and customer relations management connect our different locations, dealers and vendors for efficient and seamless information exchange. We also maintains a comprehensive information security policy and undertakes continuous upgrades to our IT systems;
- Detailed business plans for each segment, investment strategies, year-on-year reviews, annual financial and operating plans and monthly monitoring are part of the established practices for all operating and service functions;
- A well-established, independent, multi-disciplinary Internal Audit team operates in line with governance best practices. It reviews and reports to management and the Audit Committee about compliance with internal controls and the efficiency and effectiveness of operations as well as the key process risks. The scope and authority of the Internal Audit Division is derived from the Internal Audit Charter, duly approved by the Audit Committee; and Anti-fraud programmes including whistle blower mechanisms are operative across the Company.

  The Board takes responsibility for the overall process of risk management throughout the organisation. Through an Enterprise Risk Management programme, our business units and corporate functions address risks through an institutionalized approach aligned to our objectives. This is facilitated by internal audit. The Business risk is managed through cross-functional involvement and communication across businesses. The results of the risk assessment are presented to the senior management. The Risk Management Committee reviews business risk areas covering operational, financial, strategic and regulatory risks.

There have been no changes in our internal control over financial reporting that occurred during the period covered by this Annual Report that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. Although we have implemented various initiatives for continuous business operation in response to the COVID-19 pandemic, including enabling most of our employees to telework, apart from those who need to work at their office for smooth operations, we believe these initiatives have not had a significant impact on our internal control over financial reporting

During FY 2019-20, we conducted an assessment of the effectiveness of the Internal Control over Financial Reporting and has determined that our Internal Control over Financial Reporting as at March 31, 2020 is not effective for Tata Motors Limited, related to preservation of documentary evidence of the input/output parameters used in extracting system generated reports, to validate the completeness and accuracy of information used in various process level and management review controls.

We identified certain control weaknesses in our subsidiary Jaguar Land Rover during FY 2019-20. The management has performed additional procedures and confirmed that there are no material misstatements in the financial statement. However, our Annual Report in Form 20-F to be submitted to Securities Exchange Commission, USA is being finalized and hence the final assessment and reporting of internal control over financial reporting, for Jaguar Land Rover is pending.

HUMAN RESOURCES / INDUSTRIAL RELATIONS

We considers its human capital a critical factor to our success. Under the aegis of Tata Sons and the Tata Sons promoted entities, the Company has drawn up a comprehensive human resource strategy, which addresses key aspects of human resource development such as:

- The code of conduct and fair business practices;
- A fair and objective performance management system linked to the performance of the businesses which identifies and differentiates employees by performance level;
- Creation of a common pool of talented managers across Tata Sons and the Tata Sons promoted entities with a view to increasing their mobility through job rotation among the entities;
- Evolution of performance based compensation packages to attract and retain talent within Tata Sons and the Tata Sons promoted entities; and
- Development and delivery of comprehensive training prog to impact and improve industry- and/or function-specific skills as well as managerial competence.

In line with the human resource strategy, the Company has implemented various initiatives in order to build better organisational capabilities that we believe will enable if to sustain competitiveness in the global marketplace. The Company's focus is to attract talent, retain the better and advance the best. Some of the initiatives to meet this objective include:

- Build strategic partnerships with educational institutions of repute to foster academia based research and provide avenues for employees to further their educational studies;
- Enhance Company's image and desirability amongst the target engineering and management schools, to enable it to attract the best;
- Foster diverse workforce to leverage the multiplicity of skillsets in all its operations;
- Skill development of all Blue collared workforce to enable them to effectively meet the productivity and quality deliverables; and
- Training youth under Government of India's National Employment Enhancement Mission in our skill development centers in all the plants. These trainees are given Automotive Skill Development Council certification, helping them get gainful employment in the industry. Engaging trainees benefit the Company to meet the cyclicity of demand as well.

We employed approximately 78,906 and 82,797 permanent employees as at March 31, 2020 and 2019, respectively. The average number of flexible (temporary, trainee and contractual) employees for FY 2019-20, was approximately 19,169 (including joint operations) compared to 31,647 in FY 2018-19.

The following table set forth a breakdown of persons employed by the Company's business segments and by geographic location as at March 31, 2020 and 2019.

	As at March 31,	
	2020	2019
Segment	No. of Employees	
Automotive	70,766	73,394
Other	8,140	9,403
TOTAL	**78,906**	**82,797**
Location	No. of Employees	
India	39,012	41,655
Abroad	39,894	41,142
TOTAL	**78,906**	**82,797**

Talent Development

We are committed to the development of our employees to strengthen their functional, managerial and leadership capabilities. We have a focused approach with the objective of addressing all capability gaps and preparing our employees to adopt to the fast changing external environment in order to meet the Company's strategic objectives.

The Tata Motors Academy, addresses development needs of various segments of our workforce through a structured approach. The Academy focuses on three functional pillars – Customer Excellence, Product Leadership, and Operational Excellence – and one pillar on management education, all of which are aligned with the Company-level strategic objectives. The emphasis of functional academies is to strengthen knowledge, skills and expertise with an in depth approach, within respective function. Management education emphasizes on developing general management and leadership skills. Tata Motors Academy also provides executive education opportunities in the areas of B.Tech, M.Tech, and Executive MBA. Keeping up with the digital age, the academy has also embarked upon a decisive journey of digital learning for all its employees. These include online learning and virtual classrooms, which augment the offering of functional as well as management education pillars.

As an integral part of the Tata Motors Academy, the Company's Learning Advisory Council (the "Learning Advisory Council'), aims to align its learning and development efforts, more closely with its business needs and priorities. Led by senior leaders across the organisation, the Learning Advisory Council is responsible for providing guidance and strategic direction to the Academies to design, implement and review the learning agenda.

Career Explore – our Internal Job Posting portal was launched to provide employees growth opportunities across functions, locations and business units. GEMS – Going Extra Miles initiative was launched so that employees can apply for deputation or stretch assignments. This supports employees to work on their individual development plans and widen their horizon of experience and exposure.

Annual Organisational and Talent Review and Succession planning exercise ensures healthy succession pipeline of critical roles

Skill Development

We continue our endeavour to deliver high quality products by enhancing our craftsmanship and improving manufacturing and assembly processes. We have been training our entire workforce in BSVI power transmission, assembly, testing and service areas as we roll out the entire range of BSVI products.

To meet technology disruptions and changing market dynamics, we have developed the 'Future of Workplace' strategy, to build newer skills such as High Voltage (Electric Vehicles), Mechatronics (Industry 4.0), Auto Electronics, Vehicle Communication in our workforce. We are reskilling our permanent workforce into these newer technology areas , simultaneously ,we are working on creating 'new age' workforce, young skilled , agile , digital inclined through our Company's flagship Full Time Apprenticeship program (newer craftsman trades) and introduction of BVOC program.

We are now migrating from a trade-based training approach to a process-based training approach, which emphasizes team members' knowledge as related to their actual work, in addition to the general trade-based skills, which are developed at training institutes. These skills are very specific and to accomplish this, we are implementing a fundamental skills training initiative throughout organisation.

Union Wage Settlements We have labour unions for operative grade employees at all of our plant across India, except Dharwad plant. The Company has generally enjoyed cordial relations with its employees at its factories and offices and have received union support in the implementation of reforms that impact safety, quality, cost erosion and productivity improvements across all locations.

Employee wages are paid in accordance with wage agreements that have varying terms (typically three to five years) at different locations. The expiration dates of the wage agreements with respect to various locations/subsidiaries are as follows:

Location/subsidiaries	Wage Agreement valid until
Pune commercial vehicles	August 31, 2021
Pune passenger vehicles	March 31, 2022
Jamshedpur	March 31, 2022
Mumbai	December 31, 2021
Lucknow	March 31, 2020*
Pantnagar	March 31, 2022
Sanand Passenger Vehicles	September 30, 2020
Jaguar Land Rover – UK Plants	April 1, 2021

*Negotiation on-going

The Company's wage agreements link an employee's compensation to certain performance criteria that are based on various factors such as quality, productivity, operating profit and an individual's performance and discipline.

JAGUAR LAND ROVER

Automotive apprenticeships

Jaguar Land Rover has one of the largest apprenticeship programmes in the UK automotive sector with 1000 apprentices in development. Jaguar Land Rover invest in and support life-long learning and development for our employees, including our accredited apprenticeship programmes through the Jaguar Land Rover Academy. This includes JLR apprentice engineers completing almost 50,000 hours of learning, through Technical Accreditation Scheme modules, developing their skills to help support the delivery of Jaguar Land Rover's ACES future. Jaguar Land Rover also support the Automotive Trailblazer Group and lead the creation and development of Level 4 and 6 automotive related Apprenticeship Standards.

Closing the gender gap and a digital call for the worlds brightest and best

Jaguar Land Rover has focused on attracting women into engineering and advanced manufacturing through programmes such as JLR's Young Women in the Know initiative for female students aged 15 to 18. With fewer women than men in senior roles and a majority of men in production operations in factories, the gender gap is hard to close. Traditionally, lower numbers of women coming into the industry and flourishing within it has made this even harder. However, the Company is committed both to equality and encouraging a diverse workforce, and things are changing for the better. The proportion of managers who are female at Jaguar Land Rover has increased to 19%, up from 17% in January 2017; the female proportion in our overall permanent workforce has increased by 34% during the same period. JLR's school education programme increases engagement in STEM (science, technology, engineering and maths) subjects as well as introducing successful female role models to girls as young as seven to increase their interest in engineering. JLR's Furthering Futures course is a week-long career immersion programme designed to encourage more young female STEM talent to consider engineering careers. Since the course was launched in 2012 JLR have recruited 90 Furthering Futures participants into the Early Careers programmes. Since the 2018 report, the proportion of women in the Company has increased from 12.0% in April 2018 to 12.7% in April 2019. In 2019 there has been a 0.8% decrease to our gender pay gap and a 2.5% decrease to our gender bonus gap. At 4.1%, JLR's median gender pay gap is still significantly lower than the Office of National Statistics UK average of 17.3%. However, the Company recognises they still have more to do to narrow the gap further

Human Rights

The Human Rights Policy sets out the commitment to respect and comply will all relevant laws, rules and regulations in the territories in which Jaguar Land Rover operates. These include provisions addressing slavery, human trafficking, forced labour, child labour and upholding each employee's right to freedom of association. We have refreshed the assessment of slavery and human trafficking risk risks and continue to deem the risk to be low.

OUTLOOK

LONG TERM

The Indian automotive sector has the potential to generate up to US$251.4-282.8 billion annual revenue by 2026. The Indian auto industry intends to create nearly 65 million additional jobs by 2026, around 32 million people are employed directly and indirectly by the sector, out of which at least 65% are contract workforce. While automotive industry is likely to remain impacted in the short-term due to COVID-19 pandemic, encouraging recovery is seen in China. It is expected that other economies will follow a similar pattern in due course.

Union Minister of India announced that the government of India is set to introduce a vehicle scrappage policy, under which recycling clusters may be established near ports. In scrappage policy, recycled material will be useful for the automobile industry as it will reduce cost of manufacturing cars, buses, and trucks, increasing India's competitiveness in international markets. An incentive-based mechanism could make the scheme lucrative and encourage people to scrap their old vehicles and replace them with new ones. The upcoming scrappage policy will result in boosting demand for the automotive sector.

Increased urbanisation and localised transport policies have opened up new opportunities for Mobility as a service, most notably in cities. Electric vehicles are gaining a lot of traction in shared mobility space and TML has been a front-runner in this newly evolving segment, entering into various strategic partnerships.

There is an increasing buzz for e-mobility by 2030. We acknowledge the importance to environment risk and are prepared for the electric vehicles. In addition to Electric vehicles, we prepared itself to be efficient in not only BSVI, but also plans to take a holistic approach towards environment regulations and stay ahead in Industry.

Continued investment, by Jaguar Land Rover, in new products and technologies as well as expanding its production capacity in appropriate strategic locations, while balancing production with sales, is key for the success of the Company.

IMMEDIATE AND SHORT TERM

Faced with declining sales figures and global political uncertainties and introduction of emission norms in the Indian market, the on-going COVID-19 pandemic has added to the challenges faced by the OEMs. The challenges brought in by the COVID-19 includes disruption of supply chain management, shut down of manufacturing units, Liquidity issues, further decline in sales figures. Digital retail of cars, parts and services, safety norms and personal hygiene, technology enabled working environment away from normal office boundaries are few of the new normal which would emerge from these challenging times and would change the course of business in coming times. Auto manufacturers across the globe are establishing workforce safety protocols, creating contingency plans and cash flow management, setting up quick response teams, teams to focus on supply chain assessment and risk management. Companies are maintaining stakeholder confidence and informing customers who will be impacted, including providing financial flexibility and support to the entire ecosystem of dealers, suppliers and customers. Government of India announced ₹20 lakhs crores financial package to fight coronavirus and revive the economy as a measures to boost Make in India. This package will cater various sections including cottage industry, MSMEs, migrant labourers.

OPPORTUNITIES

In the Budget 2020, the Government of India has announced to provide additional income tax deduction of ₹1.5 lakhs (US$2,146) on the interest paid on the loans taken to purchase EVs.

The government of India aims to develop India as a global manufacturing centre and an R&D hub. Under National Automotive Testing and R&D Infrastructure Project (NATRIP), the Government of India is planning to set up R&D centres at a total cost of US$388.5 million to enable the industry to be on par with global standards. The government of India has launched Faster Adoption and Manufacturing of Hybrid and Electric vehicles (FAME) and National Electric Mobility Mission Plan 2020 (NEMMP) to promote electric cars.

Shared mobility is critical to India's future growth and delivering on consumers' aspiration of enhanced quality of life. The immerse strain on urban infrastructure created opportunities for smart mobility concepts. There is a great opportunity for technological innovations in the shared mobility space. It serves as one of the most promising hot spots for new and pioneering start-ups. More than anything, it promotes consumers to be responsible in their choices of mobility.

Jaguar Land Rover has a strong product range that compete in various segments, including the increased electrification of the product portfolio. New and refreshed products, including the all-new Land Rover Defender, refreshed Land Rover Discovery Sport, the refreshed Jaguar XE and the refreshed Jaguar F-TYPE and the increased application of electrification technologies (hybrids and full battery electric) to new models and existing models ensures that Jaguar Land Rover can compete in the premium segments with class-leading products.

CAUTIONARY STATEMENT

Statements in the Management Discussion and Analysis describing our objective, projections, estimates and expectations may be "forward-looking statements" within the meaning of applicable securities laws and regulations. Actual results could differ materially from those expressed or implied. Important factors that could make a difference to our Company operations include, among others, economic conditions affecting demand/supply and price conditions in the domestic and overseas markets in which we operates, changes in government regulations, tax laws and other statutes and incidental factors.