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North America
Automotive Sectors

A Company and Industry Analysis | September 2017

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- Auto sales fell by 2% to 6,978,089 in the first five months of 2017, from 7,117,697 a year earlier amid lower production, higher interest rates and competitive product line-ups.
- Detroit's Big Three General Motors (GM) (NYSE: GM), Ford (NYSE: F) and Fiat Chrysler's (FCAU: NYSE) sales fell in the first five months of 2017, to 3,117,657, from 3,231,641 a year earlier.
- The automotive industry is a major contributor to the Canadian economy, accounting for 14% of production GDP, 24% of manufacturing trade and supporting half a million jobs directly and indirectly, according to Industry Canada.
- Canadian motor vehicle sales gathered momentum, totaling 1,039,068 in the first half of 2017, up 5% from 989,382 a year earlier.

Industry Profile — Key Points

- The US is once again the world's second largest auto-maker, with sales of 17.86 million in 2016, up from 17.84 million a year earlier.
- Detroit's Big Three collectively sold 7.88 million vehicles in 2016, down from 7.93 million a year earlier, for a market share of 44.9%.
- In May 2017, vehicle and parts manufacturing employed 943,700 workers, up from 938,400 a year earlier.
- Sales by Canada's largest manufacturing sector totaled 1,983,745 vehicles in 2016, up 2.2% from 1,939,517 a year earlier.
- Canada exported vehicles and components worth US$95.6 billion in 2016, up 9.5% from US$86.5 billion a year earlier, Statistics Canada estimates.

Market Trends and Outlook — Key Points

- Self-driving and autonomous vehicles in the US have been made possible through networking and advanced computer systems, as the world becomes more connected through internet access and mobility.
- US drivers will soon enjoy the convenience of high-speed internet connection on the road. Automakers, telecommunications giants, software companies and app developers are seeing huge potential in the connected car.
- Electric and hybrid vehicles are becoming an increasingly important part of Canadian production as they comply with new climate and energy policies.
- Despite President Trump's threat to impose high tariffs on cars made in Mexico, German auto supplier Hella Behr Plastic Omnium (HBPO) announced plans in June 2017 to build two new plants in Mexico to support its North American expansion.

North America

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Current Environment

United States

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Sector Overview

The US automotive industry put in a mixed performance over the last six months, with sales of US made cars down but more imports from some markets and an ongoing lackluster result in overall industry output. The industry's gross domestic product (GDP) fell by 1.2% in the first quarter of 2017, compared with a 2.1% drop in the fourth quarter of 2016. This came amid slow consumer spending and a downturn in demand for US cars abroad.

Sales fell by 2% to 6,978,089 in the first five months of 2017, from 7,117,697 a year earlier due to lower production, higher interest rates and competitive product line-ups. However, new jobs created increased to 138,000 in May 2017, up from 43,000 a year earlier, according to the Bureau of Labor Statistics.

Detroit's Big Three General Motors (GM) (NYSE: GM), Ford (NYSE: F) and Fiat Chrysler's (FCAU: NYSE) sales fell in the first five months of 2017, to 3,117,657, from 3,231,641 a year earlier. Chrysler, the smallest among the Big Three, reaped benefits from record sales growth of its Jeep (10.6%) and Ram (7.4%) models. Ford received an international engine award in Stuttgart, Germany, for its EcoBoost for the 6th consecutive year. It offers 99 horsepower, 123 horsepower and 138 horsepower options with capacities of up to 3.5 liters for all Ford vehicles worldwide, including the Focus RS and the GT supercar.

Ford recalled 3,000 vehicles in North America in May 2017 as they failed to comply with vehicle safety standards. They included the 2017 Ford F-150, Explorer and Super Duty models, due to faulty welding in the back frames of the driver's seat, and the 2015-2017 F-150, F-250 and F-550 equipped with aftermarket door handle chrome covers.

Electric cars attracted buyers because of their fuel efficiency and economic benefits. Sales totaled 72,424 in the first five months of 2017, up from 49,839 a year earlier. The Department of Energy estimates that, on average, driving an electric vehicle costs about a third of driving a gasoline car.

German manufacturers' US car sales were 445,066 in the first quarter of 2017, up from 436,454 a year earlier,

Table 1: Performance of Automotive Stocks Listed on the New York Stock Exchange

	Ticker	Closing Share Price as of		Changes
		December 30, 2016	June 30, 2017	
Tesla Motor Inc	TSLA	213.69	361.61	69%
Spartan Motor Inc	SPAR	9.65	8.85	-8.3%
GM	GM	34.84	34.93	0.2%
Ford	F	12.25	11.19	-8.6%
Toyota	TM	117.20	105.20	-10.2%
Honda	HMC	29.19	27.39	-6.1%
Paccar Inc	PCAR	63.90	66.04	3.3%
Autoliv Inc	ALV	113.15	109.80	-2.9%

Index	Ticker	Opening price on July 31, 2016	Closing price on January 31, 2017	Changes
Dow Jones Industrial Average	DJI	19,762.60	21,349.63	8%
Dow Jones US Auto Parts Index	DJUSAT	429.75	471.77	9.7%

Source: Mergent analysis

Current Environment - United States

according to the German Association of the Automotive Industry, thanks to their attractive models. The US is the largest market for German electric cars, with 40% of all electric models sold in the US produced by German manufacturers. The Big Three were keeping a wary eye not only on their German competitors but also on their South Korean rivals. However, Hyundai's (KSE: 005380) annual US sales fell to 291,853 in the first five months of 2017, from 306,549 a year earlier, due to lower sales of the Accent, Azera, Genesis and Sonata models.

Sector Performance

Over the last six months, the share prices of two of the eight major automotive companies examined by Mergent rose, but that of Spartan Motor Inc (NASDAQ: SPAR) fell 8.3%, Ford's (NYSE: F) by 8.6%, Toyota's (NYSE: TM) by 10.2%, Honda's (NYSE: HMC) by 6.1% and Autoliv Inc's (NYSE: ALV) by 2.9%.

Tesla (NASDAQ: TSLA) outperformed the market with a 69% rise, from US$213.69 to US$361.61, benefiting from high demand for its products. GM vehicle sales gained momentum, especially of the Chevrolet Malibu, Cruze and Camaro models, thanks to a rebound in auto demand, and its share price rose from US$34.84 to US$34.93.

Japanese automaker Toyota (NYSE: TM) was the biggest loser, its share price falling by 10.2% to US$105.20 on June 30, 2017, due to falls in North America's revenue and operating income as expenses related to credit and residual value losses increased.

The Dow Jones US Auto Parts Index (INDEXDJX: DJUSAT) rose by 9.7%, from US$429.75 on December 30, 2016, to US$471.77 on June 30, 2017. In the same period, the Dow Jones Industrial Average (INDEXDJX: DJI) rose 8% to US$21,349.63, from US$19,762.60.

Leading Automakers

General Motors

GM's net revenue was US$41.2 billion in the first quarter of 2017, up from US$36.2 billion a year earlier. This came amid robust US truck and utility sales, growth in wholesale volume and effective cost control. It sold 2.3 million vehicles worldwide in the first quarter of 2017, 1.4% down from 2.3 million a year earlier, due to poor sales in China. North America accounted for most of GM's global profit, earning US$29.3 billion revenue in the US, Canada and Mexico, with a market share of 16.3%, up from 15.9%.

Its net income was US$2.6 billion, or US$1.7 per diluted share, up from US$1.93 billion, or US$1.06 per diluted share. Its earnings before interest and tax (EBIT) rose to US$3.4 billion, from US$2.6 billion, and EBIT adjusted margin increased to 8.2%, from 7.1%. GM Europe lost US$201 million compared with a US$195 million loss a year earlier due to negative currency translation effects related to Brexit.

To maintain momentum, GM is investing in its brands around the world, including pushing the Cadillac marque in China, and launching 27 new Opel models between 2014 and 2018. It is also entering new segments in North America with vehicles such as the Chevrolet Colorado and GMC Canyon. GM will generate all electrical power for its 350 operations in 59 countries using fully renewable energy such as wind, sun and landfill gas. This is part of the company's overall approach to strengthening its business, improving communities and addressing climate change by 2050. GM is also joining global collaborative initiative renewable electricity business RE100 to increase demand for clean power.

Ford

Ford Motor Co, one of the largest US auto conglomerates, with 90 plants and 224,000 employees worldwide, had a gloomy first quarter of 2017. It sold 1.7 million vehicles globally, down from 1.72 million a year earlier, driven by higher costs, lower volume and unfavorable currency exchange.

Its revenues rose to US$39.1 billion, from US$37.6 billion, due to higher sales in Europe and South America. However, its net income fell to US$1.58 billion, from US$2.45 billion, and pre-tax profit totaled US$2.29 billion, down from US$3.8 billion. This was due to higher costs for warranties and the door latch recall of its F-150 trucks.

The auto giant announced in June 2017 that it would shift production of its Ford Focus model from the US to China, aiming for US$1 billion savings, including US$500 million for canceling plans to build the Focus in Mexico.

Current Environment - United States

Ford also plans to launch 30 new vehicles in the Middle East and Africa by 2020 as it continues to pursue growth in the region and expects sales to rise by 40% to 5.5 million by 2020.

Fiat Chrysler

The Michigan-based automaker reported revenue of €27.7 billion (US$32.5 billion) in the first quarter of 2017, up from €26.5 billion (US$31.1 billion) a year earlier. This was due primarily to higher shipments, a better vehicle mix, improved net pricing and favorable foreign exchange. Global vehicle sales increase to 1.141 million from 1.31 million. North American Free Trade Agreement (NAFTA) sales fell to 609 million, from 649 million, due to discontinued production of the Chrysler 200 and Dodge Dart as the company shifts focus from sedans to trucks and crossovers.

The US Department of Justice filled a civil lawsuit against Fiat Chrysler in May 2017 for installing software on 104,000 Ram pickups and Jeep Grand Cherokee SUVs that allows certain diesel vehicles to under-report emission pollution. Fiat Chrysler sold more than 50,000 diesel Ram 1500 pickups in the US, in 2016 making it the largest selling diesel car in the country.

Asian Automakers

The US is a very important market for Japanese automakers as they sell more vehicles in North America than they do domestically. After several years of strong performance, auto giants hit a speed bump in the first quarter of 2017, with Nissan (TYO: 7201), Toyota and Honda's US sales dropping to 2,281,238, from 2,310,746 a year earlier, amid weak demand for passenger cars. However, Toyota's North American operating income rose 35.1% to ¥171.4 billion (US$1.5 billion) from ¥126.9 billion (US$1.14 billion), due to lower expenses.

Honda, with nine manufacturing plants in six US states, sold 652,093 vehicles in the first five months of 2017, a 0.2% drop from 653,640 a year earlier. However, its global net revenue was up 38.4% to ¥4,614,600 (US$41,612) in the first quarter of 2017, from ¥4,334,236 (US$39,084) a year earlier. This came amid continuing cost reduction, lower selling, general and administrative (SG&A) expenses, including quality related expenses, and the impact of pension accounting changes.

Mergers, Acquisitions and Alliances

As the industry becomes more competitive, automakers are eager to find suitable strategic alliance partners, and the US is an attractive target because of its robust economy. Ford announced a two-year partnership with UK professional cycling group Team Sky in June 2017 making it the exclusive supplier of cars throughout 2019. Ford developed a new Focus RS for the 2017 Tour de France, with custom-made bicycle racks and Recaro seats that can handle 350kg of added weight.

General Motors and Honda will establish a US$85 million investment operation, Fuel Cell System Manufacturing Llc, to manufacture hydrogen fuel cells in south east Michigan from 2020, creating 100 jobs.

German chemical company Henkel (ETR: HEN3) and Fiat Chrysler will jointly develop advance materials to improve performance by reducing the weight of the Alfa Romeo's Giulia in 2018. They will use 45% aluminum in the body to make it 90 kg lighter than a steel framework, aiming to spur demand globally.

Cadillac, in partnership with US aviation, announced in June 2017 a weekly air transportation service from Manhattan to the Hamptons, with the option to use a crossover vehicle. The aim is to promote and expanding both brands globally while providing customers with unique and memorable ride experience.

Toyota, which has been involved in autonomous technology for more than 25 years, announced it will build automated vehicle systems utilizing its expertise and advanced technology. The aims are to sell self-driving cars in the next three years and to strengthen Toyota's reputation in automated cars and technologies software.

US automotive company Lithia (NYSE: LAD) completed the acquisition of US-based automotive company Baierl Auto Group. The aim is to develop autonomous vehicle technology and to strengthen Lithia's reputation with a significant marketing presence in one of the region's most attractive markets. The acquisition is expected to generate US$500 million in revenue and US$0.15 in earnings per share.

Current Environment
Canada

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Sector Overview

The automotive industry is a major contributor to the Canadian economy, accounting for 14% of production GDP, 24% of manufacturing trade and supporting half a million jobs directly and indirectly, according to Industry Canada. Many renowned auto manufacturers, including GM, Ford, Chrysler, Toyota and Honda, have plants in Canada.

Parts suppliers, including Magna International (TSX: MG), Tesma (TSX: TMS.A), TRW Automotive (NYSE: TRW) and Ventra Group are also big contributors. Detroit's Big Three — Ford, GM and Chrysler — operate plants but are adding capacity in countries such as China, Russia, Mexico and the US because of high Canadian wages and bigger incentives offered by their governments.

After dipping to 1.49 million in 2009, Canadian motor vehicle sales have since gathered momentum, totaling 1,039,068 in the first half of 2017, up 5% from 989,382 a year earlier. This was due to the popularity of new models, low interest rates and lower gas prices, although passenger car sales fell to 339,845, from 346,789.

The automotive industry is constantly introducing new products, technologies and processes that require autoworkers to adopt new skills for future growth. The Canadian Government allocated US$102.4 million to Ford's plant in Windsor, Ontario, in March 2017, to allow it to focus on R&D in connected car and engine technology to improve and implement commercialization of new products. Ontario has produced 15% of cars and added 100,000 jobs in North America over the past five years.

Strong growth in electric vehicle demand is making Canada a regional hub for energy-efficient autos, with total sales of 32,482 in the first quarter of 2017, up from 20,217 a year earlier. This was ,due partially to government initiatives, such as subsidies implemented in January 2017 under the Electric Vehicle Incentive Program (EVIP) to encourage consumers to buy more electric cars with rebates of up to US$10,000 and by expanding the number of charging stations.

Leading Automakers

GM Canada

Headquartered in Oshawa, Ontario, GM Canada operates in 17 locations across the country, employs more than 9,000 people and is a pioneer in green assembly. The new GM, launch in 2009, has invested C$1 billion (US$804 million) in developing facilities and is making assembly lines more flexible to help it engineer and produce popular vehicles more rapidly.

Thanks to the launch of several award-winning models in 2015 and 2016, GM Canada sold 150,496 Chevrolet, Buick, GMC and Cadillac light commercial vehicles in the first half of 2017, up 15.6% from 130,202 a year earlier. GM gave supplier of the year awards to 118 of its supplier from 15 countries in April 2017, seven from Canada, for providing customers with the most advanced technologies and top-quality vehicles and parts. GM's subsidiary Chevrolet unveiled its 2017 Colorado ZR2 with a base manufacturer's suggested retail starting price of US$44,215. It features a 2.8L duramax turbo-diesel engine, a trailering package, 4G LTE with built-in w-fi, rear vision camera and wireless phone charging.

Ford Canada

Ford Canada operates three vehicle assembly and engine development plants, and two parts dispersion centers, employing around 6,000 people, while another 18,000 work in 400 Ford and Ford-Lincoln dealerships throughout the country. With models offering a mix of utility, fuel

Table 2: Total Vehicle Sales in Canada

	January-June		
	2017	2016	Change
Passenger cars	339,845	346,789	-2%
Light Trucks	699,223	642,593	8.8%

Source: DesRosiers

Current Environment - Canada

efficiency and smart technology, Ford Canada remains the country's leading automaker. It sold 160,288 in the first half of 2017, up 7% from 149,842 a year earlier, thanks to its popular F-series and Escape. The auto giant is expecting a sales boost from its 2018 Ecosport, F-150 and Mustang models.

Chrysler Canada

Chrysler Canada, a unit of Fiat Chrysler Automobiles, struggled with car sales, selling 91,462 in the first half of 2017, 1.6% down from 92,939 a year earlier, due to slow demand for the Jeep series. Based in Windsor, Ontario, it has played a big role in the Chrysler Group's turnaround, manufacturing some of the company's most popular products, with solid sales and market share growth. Previously, Chrysler had enjoyed months of year-over-year growth, a distinct turnaround from the financial crisis of 2008 when it was forced into bankruptcy.

Mergers, Acquisitions and Alliances

The number of M&As in the Canadian automotive sector increased as the industry became more competitive and automakers sought suitable companies with which to form strategic alliances and partnerships.

Honda, in partnership with the Canadian Government and the Government of Ontario, announced a US$492 million investment in early 2017 to upgrade its Ontario manufacturing facilities and reduce their carbon footprint over the next three years. The new investment will bring Honda's total in Canada to more than US$4.7 billion.

Hyundai Canada, in collaboration with customer review company Reevoo, is developing a consumer review website that will include verified, trusted information and vehicle ratings from its users. This is Reevoo's first partnership in North America.

Management software company Reynolds and Reynolds announced a 15-year partnership with BMW to provide the Era-Ignite dealership management system (DMS) to BMW and Mini retailers in Canada. The system tracks, manages and stores documents for the automotive industry, car dealerships and large equipment manufacturers.

GM in collaboration with innovation center Communitech announced in early 2017 that it would launch a vehicle sharing service in Ontario, with charges starting from US$7 an hour or US$63 a day. The initial fleet of vehicles will include the Buick Encore, Chevrolet Cruze, Malibu, Spark, and the GMC Yukon. Communitech vehicle sharing has been operating in 16 cities across the US since 2016 and aims to expand worldwide.

Industry Profile
United States

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Industry Size and Value

The US automotive industry has 13 international automakers: BMW (FSE: BMW), Daimler (FSE: DAI), Chrysler, Ford, GM, Honda, Hyundai (KSE: 005380), Kia (KSE: 000270), Mazda (TSE: 7261), Mitsubishi (TSE: 7211), Nissan, Subaru (9778: JP) and Toyota. Together they produced 16,657,389 cars and commercial vehicles in 2016, up from 16,612,836 in 2015, as a streamlined industry overcame its post-recession slump with solid sales increases, job growth and product innovation.

The US is once again the world's second largest automaker, with sales of 17.86 million in 2016, up from 17.84 million a year earlier, behind China's 28 million, up from 26 million, accounting for 19% of global sales. Competitive product line-ups, easier credit and pent-up demand had a positive influence on sales. The US market, for long the world's largest, lost the lead because of the sales decline in 2009 and the continuing rise of China's auto production. The dramatic 34.3% fall in production in 2009 pushed the US from second to third in global auto rankings, behind China and Japan, and it did not regain second place until 2011.

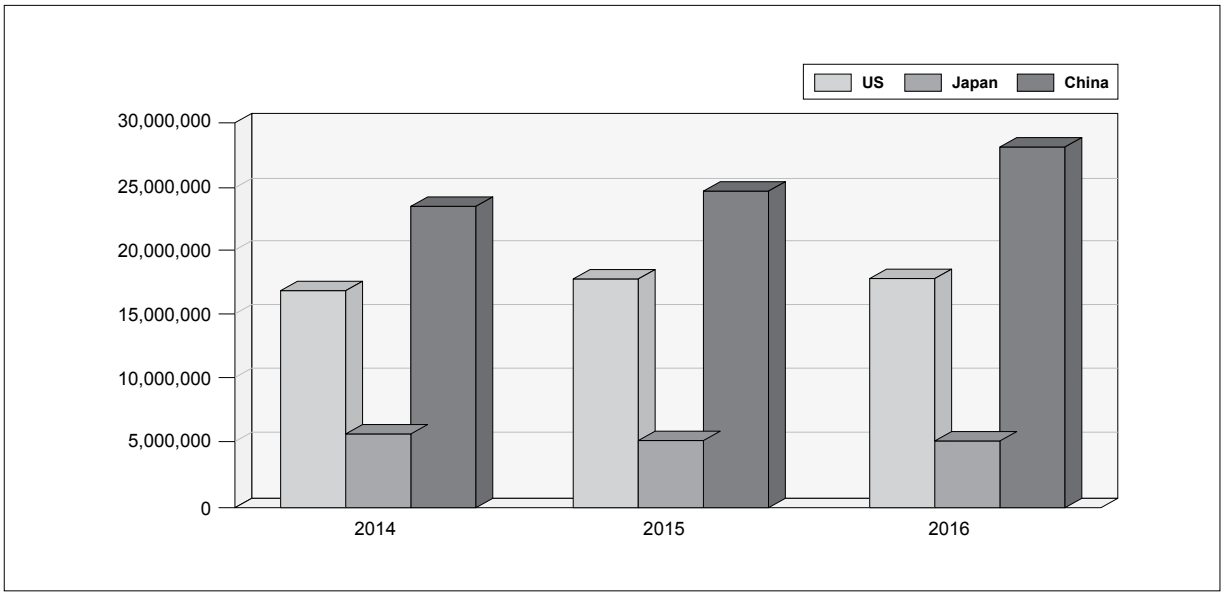
Detroit's Big Three collectively sold 7.88 million vehicles in 2016, down from 7.93 million a year earlier, for a market share of 44.9%, an improvement from 2013 but lower than the 45.4% in 2015 and 45.6% in 2014. Following the global downturn of several years ago, US manufacturers reported their lowest market share of 44.4% in 2009, while the Japanese share was a record 39.8%. GM ended 2016 with a 17.3% market share, Ford 14.8% and Fiat Chrysler 12.8%, still a far cry from 2000, when the three companies commanded two thirds of the market.

Industry Focus

Employment

The automotive industry is one of the largest US employers, accounting for 4% of national GDP and affecting many parts of the US industrial base. After a significant decline in employment between 2008 and 2009, due to continued restructuring of the Big Three, automakers are hiring again. In May 2017, vehicle and parts manufacturing employed

Table 3: World Motor Vehicle Rankings (In Millions)



Source: International Organization of Motor Vehicle Manufacturers

Industry Profile - United States

943,700 workers, up from 938,400 a year earlier, Bureau of Labor Statistics (BLS) data shows.

Because of increased investment in infrastructure, BLS estimates that automotive employment will increase to 4.7 million in 2022. Motor vehicle parts manufacturing is projected to be worth US$283 billion in 2022, one of the fastest growing industries in terms of real output. While production and sales are back near their pre-recession levels, automobile-related employment is still far from its peak of 1.33 million in June 2000.

Sector Investment

With nearly 50% of indigenous US production foreign owned, local automakers are not leaving anything to chance and are monitoring the balance of sales, production and inventory more closely, while planning long-term investments.

Toyota announced a US$600 million investment in early 2017 to build a manufacturing plant in Princeton, Indiana. The funds will be used for retooling, new equipment and advanced technologies. The aim is to meet the strong and growing demand for the Highlander midsize SUV. The project is scheduled to begin in 2019, producing 40,000 Highlanders annually and creating 400 jobs.

Ford announced a US$350 million investment in May 2017 to develop a new 10-speed transmission engine in Livonia transmission plant in Michigan for the 2017 F-150 Raptor and F-150 trucks. The investment is part of the company's investment plan of US$9 billion to fortify its core automotive business and adding 800 new jobs.

Ford also announced a US$1.2 billion investment in three Michigan manufacturing facilities to strengthen its leadership in trucks and SUVs. This includes US$850 million and US$150 million investments in its Michigan Assembly Plant to retool its manufacturing facility and expand capacity for engine components for the all-new Ford Ranger and Ford Bronco. The projects will begin production by the end of 2018, adding 130 jobs.

Ford also announced a US$900 million investment to build the all-new Ford Expedition and Lincoln Navigator in its Kentucky truck plant, starting in 2019. The aim is to export to more than 55 markets globally and strengthen Ford's reputation and global market presence. This investment adds to the US$1.3 billion invested in the plant in late 2015.

Toyota announced a US$1.33 billion plan to retool its manufacturing facility to build the 2018 Camry in Georgetown, Washington. This will be the first implementation of its new global architecture using standardized platforms, powertrains and auto parts for safer driving. It is part of Toyota's plan to invest US$10 billion in the US over the next five years, adding to the US$22 billion invested over the past 60 years.

Research and Development

New product features and new technologies that improve vehicle safety are increasingly attractive to customers and the Big Three spend 5% of their annual revenue on R&D, manufacturing engineering, and design. They have research teams devoted to the study of how active technologies can better alert drivers to potential accidents.

Fiat unveiled its 2017 Uno model that features a new grille, restyled bumper, repositioned fog lamps, new alloy wheels and two new Firefly engines. The new engines are flex-fuel (petrol-ethanol) units available in 1.0 and 1.3-litre displacements and include five-speed manual and Dualogic AMT.

GM unveiled its 2018 Yukon Denali, with a 420-hp 6.2L V-8 engine with direct injection. It also features stability control and Magneride suspension for optimum handling, an engine noise reducer and a wireless phone charging and infotainment system with navigation including Apple CarPlay and Android.

Ford unveiled its 2018 Mustang in June 2017, with a 2.3-liter EcoBoost engine replacing the previous 3.7-liter V-6 as the base engine. This will enhance acceleration with a new 10-speed automatic transmission, fuel efficiency and lower hazardous emissions. It also features Magneride suspension for optimum handling, pre-collision assist with pedestrian detection and line-lock technology to burn out the tires to create smoke without damaging rear brakes.

Ford also unveiled its 2018 Ford F-150 in June 2017, with a 3-liter V6 engine replacing the previous 3.5-liter V6 as the base engine, while the 2018 Ford Expedition is equipped with a 3.5-liter EcoBoost engine. This will enhance acceleration and improve fuel consumption. The F-150 features auto start-stop technology that helps reduce fuel consumption and emissions during heavy traffic, while the Expedition features trailer backup assist and

Industry Profile - United States

an off-road terrain management system for stability and flexibility control.

Energy, Fuel and Environmental Issues

The automotive sector is one of the most heavily regulated industries globally and, in the US, automakers must obtain EPA certification that their vehicles meet certain emission standards. They must also comply with NHTSA Corporate Average Fuel Economy (CAFE) standards, which limit the amount of regulated pollutants that vehicles emit.

Under GHG and CAFE standards, new light vehicles must have fuel-economy standard of 35.5 miles per gallon (mpg), which is expected to reduce CO_2 emissions by 900 million metric tons, the equivalent of taking 179 million cars off the road. To comply with these standards US automakers have included a significant number of hybrids or electrically powered vehicles in their line-ups.

The US Government wants to improve fuel economy to 55.5 mpg for cars and light-duty trucks in the next eight years. Improving fuel economy and reducing GHG emissions will save consumers more than US$1.7 trillion a year at the gas pump and reduce US oil consumption by 12 billion barrels.

The growth in automakers investments to develop new cars continues to have a significant effect on the region's environment, increasing traffic congestion and air pollution, prompting stricter regulations on air pollutants, noise, safety and fuel economy. Local and international automakers must also meet additional requirements set by various state governments that include the California Government imposed legal requirements governing air pollution and increase the production of "green cars". The aim is to have 550,000 EVs and 950,000 plug in hybrids on the roads while reducing air pollutions in the next eight years.

The EPA is finalizing rules to reduce air pollution from light duty vehicles. Tier 3 will set new vehicle emission standards in 2017 to lessen car pollutions from all classes. Tier 3 is harmonized with the California Air Resources Board (CARB) Low Emission Vehicle (LEV3) program so that automakers can sell the same models in all 50 states.

Industry Profile
Canada

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Industry Size and Value

The Canadian auto market remained healthy with sales, boosted by a stable economy, reaching targets. While some companies' growth decelerated due to internal and external issues they were optimistic that sales would pick up, especially in the truck segment, which makes up 60% of the market.

The industry comprises five main segments - vehicle assembly, auto parts and component manufacturing, motor vehicle bodies and trailers, authorized automotive network and the automotive aftermarket. Sales by Canada's largest manufacturing sector totaled 1,983,745 vehicles in 2016, up 2.2% from 1,939,517 a year earlier, or 9.2% of the North American total, up from 1.5%.

Production totaled 2,370,271, up from 2,283,307, or 13% of North American output, up from 1.2%. Figures were buoyed by ongoing employment gains, low interest rates and near-record affordability, making Canada the world's ninth largest car market, behind Germany, India and Mexico but ahead of Brazil.

Every auto assembly job supports seven others and 500,000 people across the country are employed directly or indirectly by the industry. While some Canadian automakers' sales numbers were higher their share of the North American market declined, especially after GM Canada shifted production of its Chevrolet Camaro back to the US. Auto sector employment peaked at 153,000 in 2000, but by 2009 had fallen to 98,000. Since then, despite robust sales recovery, the industry has added only 4,000 jobs.

Industry Focus

Canadian Auto Trade

Canada is one of the world's largest exporters of automotive products, with more than half of annual sales attributed to foreign purchases. It exported vehicles and components worth US$95.6 billion in 2016, up 9.5% from US$86.5 billion a year earlier, Statistics Canada estimates. The US remained Canada's largest market, worth US$48 billion, accounting for 49% of overall exports in 2016.

Imported motor vehicles and auto components were worth US$106 billion in 2016, up from US$99.4 billion a year earlier. The top five trading partners after the US — Mexico, Japan, Germany, South Korea and China — provided almost two third of imports.

The auto trade balance was in deficit between 2006 and 2011, as shipments to the EU, China and Japan dropped, causing production downsizing at several assembly plants. The deficit increased in 2016 to US$26.1 billion, from US$23 billion in 2015.

Sector Investment

Over the past decade, federal and provincial governments have bolstered major ventures in car development, boosting the introduction of new items and helping the security of the risky car producing industry. Canadian Vehicle Manufacturers' Association (CVMA) members have invested more than C$8 billion (US$6.43 billion), mostly in more effective, flexible assembling procedures. This has secured new item orders while enhancing the ecological performance of vehicles and motors.

Honda announced a US$376 million investment in Canada in early 2017, with financial support from the Federal and Ontario Governments. The funds will go to building a new paint shop that will reduce greenhouse gas emissions by 44% and to build new models of the Civic and the CR-V. Some will go to R&D over the next three years to advance the latest manufacturing technologies at its Alliston factory north of Toronto.

Canadian global automotive supplier Magna announced a US$1.24 billion investment in early 2017 to develop a car plant and paint centre in Slovenia with annual capacity of 100,000 to 200,000 vehicles, adding 400 new jobs. Magna currently builds the Mercedes G class for Daimler and the BMW 5 series for BMW Group in Austria.

GM Canada announced a US$554 million investment in February 2017 to upgrade facilities, tools and machinery in its Oshawa assembly plant and engine plant in St Catharine's, Ontario, over the next four years. The auto giant announced that it would give its workers a 2% annual

Industry Profile - United States

pay increase and US$12,000 in bonuses over the next four years. This is part of a proposed new contract with Unifor, Canada's largest private sector union, which also includes a new pension scheme for new hires.

Ford announced a US$1.2 billion investment in March 2017 to build a R&D centre in Ottawa over the next four years. This will focus on infotainment, driver-assist features and autonomous vehicles, adding 400 software and hardware engineers. The aim is to reduce road fatalities and traffic congestion through connected car data. The global connected car market will reach US$131 billion by 2019, with an annual growth rate of 30%.

Research and Development

As traditional business methods can no longer deliver needed results, the Government of Canada has created the C$145 million (US$116 million) Automotive Partnership Canada (APC). This will support collaborative R&D over five years to drive the industry to greater levels of innovation. It has led to a close working relationship between automakers, government agencies and academic institutions in long-term R&D in alternative fuels, electric vehicles, mechanical engineering, engine and transmission design, advanced materials, emissions, biomechanics and vehicle safety.

APC, guided by an industry task force, has funded more than a dozen R&D projects. All research is conducted under one of three strategic themes: improving environmental performance and impact, the cognitive car and next generation manufacturing.

GM subsidiary Chevrolet unveiled its next-generation 2018 SUV Equinox at the Montreal International Auto Show in January 2017. It features remote start, heated front seats, push button start, MyLink screen, rearview camera, Apple Car Play and Android Auto Compatibility, 4G LTE Wi-Fi and teen driver technology to help encourage safe driving among young adults.

Also in January, GM subsidiary GMC unveiled its all-new 2018 Terrain with new turbocharged propulsion systems. These comprise the 1.6L turbo-diesel, 1.5L and 2.0L turbocharged gas engines with nine-speed automatic transmissions.

Fiat unveiled its 2018 Alfa Romeo Stelvio and Stelvio Ti in June 2017, with a 280-horsepower turbocharged and intercooled 2.0L engine delivering 0-60 miles per hour mph in 5.4 seconds. This aims to enhance acceleration with a new 10-speed automatic transmission and improve fuel consumption. It also features leather seating, optimum handling control, lane departure warning and pre-collision assist.

Fiat in partnership with software company Dealertrack also unveiled its first original equipment manufacturer (OEM) in June 2017 for online vehicle retailing that include financing application for new and used vehicles, trade-in estimator and vehicle deposit reservation. The aim is to reduce the purchasing time while initiating a formal purchase agreement.

Chevrolet unveiled its 2018 Traverse with a 3.6L V-6 engine in early 2017. This will enhance acceleration with a new nine speed automatic transmission delivering 10% more horsepower while reducing its fuel consumption of 9.4 liter/100km highway. It also features MyLink infotainment systems for Apple CarPlay and Android Auto, optimum handling control, wireless charging and collision warning.

Policy and Regulatory Environment

The auto sector continues to strengthen its reputation and global market presence through R&D in green car technologies to reduce air pollution. Canadian car regulations, which are more or less in line with US regulations, include vehicle safety and environmental friendly cars to promote a cleaner environment.

Canada has introduced a green levy on fuel inefficient vehicles, starting at C$1,000 (US$804) for those with a weighted average fuel consumption of 13 liters or more per 100 km. The Government has proposed a US$130 million budget over five years to 2020 to support clean technology R&D and demonstration activities, and US$2.9 billion to address climate change and air pollution issues.

It also will implement Canada's Tier 3 regulations that include stricter limits on air pollutant emissions from new passenger cars, light-duty trucks and certain heavy-duty vehicles beginning with the 2017 models. The regulations will also reduce limits on the allowable sulfur content of gasoline, aligning Canadian standards with those in the US.

Rising competition and automotive market growth have boosted Canada's commitment to encouraging development of vehicles and high technology. The Federal

Industry Profile - United States

Government announced US$19.6 million in funding for seven new projects under the Supplier Automotive Innovation program in 2016. These include:

- Pravala Car in Kitchener, Ontario, for vehicle network connectivity
- Exco Technologies Ltd (TSE: XTC) in Markham, Ontario, developing power trains for faster production of automotive components
- Verbom Inc in Sherbrooke, Quebec, building aluminum body panels and parts to reduce fuel consumption
- Axiom Plastics in Aurora, Ontario, producing new hybrid plastic auto parts
- Mojio in Vancouver, British Columbia (BC), producing cloud-connected solutions
- Electromac Group in Windsor, Ontario, building hot stamping technology and
- Landau Gage in Windsor, Ontario, developing an automotive measuring machine using laser technology

Market Trends & Outlook

United States

MERGENT

Electric Cars Charge Forward

Due to stringent fuel-economy standards automakers are forging ahead in R&D of highly efficient electric cars. These are 100% emission free, have no polluting byproducts and are cleaner than hybrid automobiles, taking their power from batteries, the sun or hydrogen fuel cells.

Volkswagen announced a US$2 billion investment in early 2017 to develop zero emission vehicles (ZEV) infrastructure and awareness programs over the next ten years. The auto giant also announced that it will build a "Green City" in California with testing facilities to further R&D of emissions-reducing technology, including a ZEV shuttle service, a car-sharing service and electric vehicles.

Volkswagen will invest US$300 million over the next ten years to build 450 charging stations in 39 states, including 11 metropolitan areas and high-traffic highways. They will include 150kW and 320kW chargers that can provide a full charge within 15 to 20 minutes. The aim is to put 1.5 million EVs on the road by 2025 and four million by 2030.

Honda, in partnership with Hitachi (TYO: 6501), announced a ¥5 billion (US$) investment to develop affordable EVs to be made in Japan, the US and China. The partnership will cut the huge capital production costs and the two companies' advanced technologies will spur EV demand growth. The aim is to have EV's accounting for two-thirds of the partnership's global sales by 2030.

Hyundai and Kia announced a US$3.1 billion investment over the next five years to retool their manufacturing facility in the US to develop autonomous and electric vehicles. The automakers received the best mid and low price eco-friendly models award from automotive research company Kelley Blue Book in April 2017. The eight chosen models were the Ioniq Hybrid, Sonata Hybrid, K5 Hybrid, Niro Hybrid, Sonata plug-in hybrid electric vehicle (PHEV), K5 PHEV, Ioniq EV and Soul EV models.

Ford is investing US$700 million to expand and retool its Flat Rock Assembly Plant in Michigan that will focus on autonomous and electric vehicles. Ford also unveiled seven of its 13 new global electrified vehicles, including hybrid versions of the iconic F-150 pickup and Mustang. This is a part of a US$4.5 billion investment in electrified vehicles up to 2020, offering greater fuel efficiency and performance, and growth across Ford's global vehicle lineup.

Autonomous Vehicles are the Future

Autonomous vehicles continue to shape the future of the automotive industry, with new technologies affecting vehicles, transportation systems and roads and highway infrastructure. With greater amounts of money being spent on R&D in this area, self-driving vehicles may prove much safer than conventional autos.

The Toyota Research Institute (TRI) unveiled its first autonomous vehicle prototype, the Lexus LS 600hL, in Sonoma, California, in March 2017. It features light-sensing technology, radar, automated highway driving assist and collision avoidance systems.

GM has developed autonomous test vehicles that feature the latest technology, including light-sensing technology, radar and stereoscopic cameras to monitor and handle nearly all road conditions and obstacles. The auto giant has been involved in autonomous technologies for over more than 20 years, aiming to deploy them on public roads in the near future.

Ford announced a US$1 billion investment in artificial intelligence company Argo AI to build autonomous vehicles over the next five years with the help of Argo's roboticists and engineers. The aim is to deploy fully self-driving vehicles on public roads by 2021 and to strengthen Ford's reputation with significantly advanced technology in one of the region's most attractive markets.

In June 2017, Audi announced plans to test its autonomous vehicles using one of its models, complying with Level 3 automation standards of the Society of Automobile Engineers that requires human driver intervention as a safety precaution. However, Audi must take out a US$5 million insurance policy per vehicle and reimburse state police for the tests. The vehicles are also prohibited from operating near schools or construction zones.

Market Trends & Outlook - United States

Vehicles Increasingly Going Online

US drivers will soon enjoy the convenience of high-speed internet connection on the road. Automakers, telecommunications giants, software companies and app developers see huge potential in the connected car. The increasing adoption of smart phones makes the connected car the next logical step for automotive manufacturers looking for innovation in a very competitive market.

Honda unveiled its newest innovation in early 2017 that provides drivers with purchasing process application from a media player console. The payments are secured by advanced technology that replaces a 15-digit primary account number with a unique digital identifier called a token, designed specifically for petrol stations and parking meters. The aim is to release the technology worldwide.

Nissan and Microsoft announced in early 2017 that they will unveil a new connected vehicle platform, based on the Azure cloud platform, using Microsoft services, including the Cortana voice-based assistant. Tata Motor and Microsoft also announced the development of a connected vehicle platform using Microsoft's connected vehicle technology. This will include AI, machine learning and internet of things (IoT) to improve in-car connection.

GM affirmed in early 2017 that it will offer new internet services for its connected cars which will provide fast connectivity up to 16.7 meters from the vehicle to ensure smooth and safe operation. The auto giant currently charges US$10 a month for one gigabyte of data, US$20 a month for four gigabytes and US$40 a month for ten gigabytes.

Ford has unveiled its updated infotainment software in 2017 car models that is compatible with all smartphones. This features voice interaction, vehicle tracker, internet service, location navigation, and traffic information.

Honda, in collaboration with American cloud-based software platform Cisco Jasper and global leader in secure smartphone charging stations BrightBox, will introduce the MyHonda connected car platform. It provides vehicle information through the Honda app and includes scheduling of maintenance reminders, GPS, speed warnings and a parking finder.

Market Outlook

With the global economy set for steady, broad-based growth in 2017 and 2018, US manufacturing is on the upswing and this should lead to an improved employment outlook. Coupled with macroeconomic conditions such as low interest rates, increased employment and recovery of the housing market, this should boost auto sales.

Information Handling Services (IHS) Automotive continues to believe that the upside for auto demand is greater than the downside. With a strong automotive result in mid-2017, and regulation and tax breaks encouraging GM, Ford and Fiat Chrysler to increase production and boost employment, consumers may feel even more confident in 2017 and 2018. IHS Automotive forecasts US light vehicle sales of 17.6 million in 2017, spurred by new vehicle models and technologies. Chinese, French and South Korean automakers are likely to enter the US market, further intensifying competition.

Fiat Chrysler US announced plans stop the production of small cars and focus entirely on pickups and SUVs and the Jeep in 2017 to meet shifting demand, while Ford will launch four new SUVs by 2020. The automotive sector should continue as a source of economic strength over the next several years and more hiring can be expected in 2017 and 2018. GM is hoping to add 900 employees as part of its 2015, four-year contract with the United Automobile Workers (UAW) to add 3,300 jobs. Ford is adding 800 jobs at its Livonia Michigan plant to develop its 2017 F-150 Raptor and F-150 trucks.

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Canada

MERGENT

Autonomous Vehicles Take the Road

As the world becomes more connected through internet access and mobile devices, self-driving and autonomous vehicles in Canada have been made possible through networking and advanced computer systems and may prove much safer than conventional autos.

Canadian operating systems company BlackBerry QNX unveiled its self-driving 2017 Lincoln MKZ concept car in early 2017. This features the Neutrino real-time operating system (RTOS) and advanced driver-assistance systems (ADAS) for security against system malfunctions while in automated mode. It also includes light detection and ranging (LIDAR) cameras and sensors capable of handling nearly all road situations. The aim is to deploy the vehicles on public roads in the near future and strengthen BlackBerry's reputation using significantly advanced technology in one of the region's most attractive markets.

Society of Automotive Engineering (SAE) and GM announced in April 2017 that eight North American universities will participate in the AutoDrive self-driving vehicle competition. They are the University of Toronto, Waterloo, Kettering, Michigan State, Michigan Tech, North Carolina Agricultural and Technical (A&T), Texas Agricultural and Mechanical (A&M) and Virginia Tech. The aim is to develop self-driving cars in three years using advanced sensor technology to navigate an urban driving course in automated mode in compliance with SAE Standard level four.

Uber affirmed that it will build its first R&D facility outside the US in Toronto to develop new technology and software for autonomous cars, with University of Toronto researchers running the project. Uber also announced a US$5 million investment in the non-profit research institution Vector Institute, which specializes in artificial intelligence (AI), to further its R&D of autonomous cars.

In early 2017, the Canadian Government announced plans to develop a driverless shuttle. It will travel at just below 22 kmh and is scheduled to begin in 2018. The aim is to interest local and international companies in developing and expanding the autonomous car market.

Mexico Threatens Canada's Status

Canada, the US and Mexico's vehicle sales totaled 10,234,572 in the first half of 2017, down from 10,348,184 a year earlier. Canadian sales increased by 4.7% to 1,039,068, from 989,382, thanks to a big rise in demand for light trucks. However, Asia and Europe-based automakers made more new billion-dollar investments in Mexico than in Canada.

Mexico has become one of the favorite locations for auto investment since the 2008 global recession because of its low wages, free trade deals with other nations and proximity to the US. Before the North American Free Trade Agreement (NAFTA) was signed two decades ago Mexico produced 6% of the cars built in the region. It now accounts for 18.4%, with Mexican car production rising by 12.6% to 1,884,315 in the first half of 2017, from 1,673,970 a year earlier. Exports totaled 1,513,334, up by 14% from 1,327,363, thanks to sales of passenger cars.

Despite President Trump's threat to impose high tariffs on cars made in Mexico, German auto supplier Hella Behr Plastic Omnium (HBPO) announced in June 2017 plans to build two new plants in Mexico to support its North American expansion. However, it gave no details of the amount of investment and the number of jobs to be created. Portugal-based manufacturer GLN is investing US$2.5 million to develop a molding plant in El Marques industrial park, Queretaro.

The aim is to improve quality and efficiency of the manufacturing process by using thermoplastic and thermosetting polymer materials in car body parts while reducing labor cost. The project could generate US$5 million in sales revenue annually and add 11 machines by 2020. Steel manufacturer JFE Steel Corp announced a US$270 million investment to build a steel manufacturing plant in Guanajuato. The project will begin production by the end of 2019, adding 300 jobs.

The EU and Canada signed a Comprehensive Economic and Trade Agreement (CETA) in late 2016 allowing Canada to export 100,000 vehicles annually to the EU and removing Canada's 6.1% tax on European vehicles over seven years. CETA provisions will be implemented

Market Trends & Outlook - Canada

in September 2017, improving the Canadian automotive market and economic performance.

Green Vehicles Becoming More Popular

Electric and hybrid vehicles are becoming an increasingly important part of Canadian production as they comply with new climate and energy policies. They are more energy efficient and environmentally friendly and emit fewer or no tailpipe pollutants. As a result, automakers are signing agreements to collaborate on environmental friendly vehicle development.

Swiss engineering firm ABB announced a US$90 million investment in early 2017 to build plant and an R&D sector in Montreal, Canada. This will provide it with advanced technologies to develop next generation electric vehicle (EV) and energy-management solutions for electric buses and trains. The plant is scheduled to begin operations in the near future and create 700 jobs. The aim is to strengthen ABB's leadership in providing industrial robots to global auto and component manufacturers.

The Canadian Government is investing US$16.4 million to install level three fast-charging stations, and natural gas and hydrogen refueling stations as part of its US$62.5 million clean technologies and lower-carbon transportation program. In addition, the Canadian leader in EV charging solutions AddEnergie will build more than 1,000 charging stations across Canada by 2019. The Government also announced US$46.1 million funding to develop next-generation EV chargers to strengthen Canada's leadership in the market.

The Government also announced its 2018 "Green Car" strategy to double the number of zero-emission vehicles. Light truck gas emissions accounted for 55% of those of its transportation class and 12% of the country's total emissions in 2016, Transport Canada data shows. The strategy aims to provide initiatives, regulations and air pollutants awareness programs to meet 2030 greenhouse gas emission reduction targets and make Canada a global leader in innovation and the clean economy.

Ontario Power Generation, a non-profit zero emission car organization Plug 'n Drive and the Ontario Government will jointly develop the world's first EV recognition centre to provide EV awareness and education in Toronto. This will allow visitors to explore government programs such as Ontario's Climate Change Action Plan, charging facilities and EV operating systems.

Market Outlook

The International Monetary Fund (IMF) forecast that Canada's economy will grow by 1.9% in 2017, due to strong export growth and business investment recovery, and that auto sales will increase from 1.94 million in 2016 to 1.99 million in 2017. Some automakers will continue moving their production to Mexico and the US, while Canada retools its production to create higher-value vehicles.

Competition among automakers will be especially fierce in the light truck segment, and Ford Canada will need to step up marketing strategies if it wants to remain market leader. Chrysler is catching up quickly with strong F-series truck sales in 2016. Internet in cars and autonomous vehicles is still in its infancy but in future most new cars will be driverless, using rolling Wi-Fi hot spots and either sharing an internet connection with a smartphone or with a separate, dedicated data plan. In the near future these will be expected features in all cars and in-vehicle technology will influence buying decisions.

Currency Conversion Table

Currency exchange rates as of July 27, 2017

Currency Unit	Units per US$	US$ per Unit
US Dollar (US$)	1	1
Canadian Dollar (C$)	1.24	0.8
Japanese Yen (¥)	111.07	0.009
Euro (€)	0.85	1.17

Source: Federal Reserve Bank of New York
Note: Base currency is the US dollar

The Scope Of This Report

This report looks at the automotive industry in the United States and Canada. The report aims to a give general picture of the current environment, profile the industry and discuss market trends using the available data and an examination of key public companies. Key financial results for leading companies in each country are presented in the comparative data tables on the proceeding pages.

Research analysts draw on a range of credible industry and company data sources as well as news and information services to research and analyze the current trading environment, industry landscape and market trends and outlook for a particular sector. Primary resources are used, unless otherwise indicated, and include company data, e.g. annual reports and company financial results; macroeconomic and trade data; data and information from global and country regulatory, industry and trade bodies; government data; and reports from industry organizations and private research organizations.

Industries covered by the Industry Reports are defined by the Industry Classification Benchmark (ICB) coding system and companies for each industry are identified using the standard industry classification system and leading companies are identified on this basis. The following SIC codes are relevant to the industry: 3711 (motor vehicles and passenger car bodies); 3713 (truck and bus bodies); 3715 (truck trailers); 3716 (motor homes); 3714 (motor vehicle parts and accessories); 3592 (carburetors, pistons, piston rings, and valves); 3593 (fluid power cylinders and actuators); 3594 (fluid power pumps and motors); and 3647 (vehicular lighting equipment).

Key References

Global

Asia-Pacific Economic Cooperation (APEC)
APEC is a regional organization run by and for its 21 member economies to promote trade and investment liberalization, facilitate business growth and promote economic and technical cooperation throughout the Asia-Pacific.
http://www.apec.org/

World Trade Organization (WTO)
WTO is the global organization dealing with rules of trade between nations.
http://www.wto.org/

Organization of Petroleum Exporting Countries (OPEC)
A global organization dedicated to stability in and shared control of the petroleum markets.
http://www.opec.org/

Organisation for Economic Cooperation and Development (OECD)
An international organization comprising 30 member countries, which collects statistics, conducts research and develops agreed multilateral policy instruments, decisions and recommendations.
http://www.oecd.org/

International Organization of Motor Vehicle Manufacturers (OICA)
OICA is a federation of 41 national trade associations around the world that represents all major automobile manufacturing countries; it develops industrial and economic policy, deals with technical affairs, and collects and publishes industry statistics.
http://www.oica.net/

United States

Alliance of Automobile Manufacturers (AAM)
The alliance serves as a leading advocacy group for the automobile industry on a range of public policy issues.
http://www.autoalliance.org

Motor and Equipment Manufacturers' Association (MEMA)
MEMA exclusively represents and serves manufacturers of motor vehicle components, tools and equipment, automotive chemicals and related products used in the production, repair and maintenance of all classes of motor vehicles.
http://www.mema.org

Bureau of Labor Statistics (BLS)
The Bureau of Labor Statistics is the principal fact-finding agency for the Federal Government in the broad field of labor economics and statistics.
http://www.bls.gov

American International Automobile's Dealers Association (AIADA)
AIADA represents America's international nameplate automobile dealers and their employees who sell and service cars built in the US and abroad.
http://www.aiada.org/

Association of International Automobile Manufacturers Inc (AIAM)
AIAM is a trade association that represents US subsidiaries of international automobile companies doing business in the US.
http://www.aiaim.org/

US Office of Automotive Affairs (USDOC)
The USDOC Office of Automotive Affairs is a government organization that provides in-depth analysis of the status and future outlook for the US auto industry.
http://www.ita.doc.gov/td/auto/

Canada

Automotive Industries of Canada (AIA)
AIA is a national trade association representing Canada's automotive aftermarket industry.
http://www.aiacanada.com/

Statistics Canada (Statcan)
Statistics Canada is the country's national statistics agency and the official source for Canadian social and economic statistics and products.
http://www/statcan.ca/

Human Resources Development Canada (HRDC)
The mission of the Labor Program of Human Resources Development Canada is to promote a fair, safe, healthy, stable, cooperative and productive workplace.
http://www/hrdc-drhc.gc.ca/

Japan Automobile Manufacturers Association of Canada (JAMA - Canada)
JAMA in Canada promotes greater understanding on economic and trade matters pertaining to the industry.
http://www.jama.ca/

Canadian Vehicle Manufacturer's Association (CVMA)
CVMA is the industry association that represents Canada's largest manufacturers of light and heavy-duty motor vehicles.
http://www.cvma.ca/

Company	Country	Ticker	Exchange	Primary SIC	Other SICs				
Ford Motor Co	United States	F	NYS	3711	6331	6159	6399	6153	5012
Paccar Inc	United States	PCAR	NMS	3711	6159	7513	3714	3713	
Autoliv Inc	United States	ALV	NYS	3714	6719				
Navistar International Corp	United States	NAV	NYS	3711	3713	3714	3519	6159	6719
Tesla Inc	United States	TSLA	NMS	3711	3714	3519			
Oshkosh Corp	United States	OSK	NYS	3711	3531	3715			
Dana Inc	United States	DAN	NYS	3714	3053	3592	6719		
Meritor Inc	United States	ARM	NYS	3714	3799				
Visteon Corp	United States	VC	NYS	3714	3647	3694			
Wabco Holdings Inc	United States	WBC	NYS	3711	3714	3694	7537		

Company	Total Revenue - FYE - 1	Total Revenue - FYE - 2	Total Revenue - FYE - 3	EBITDA - FYE - 1	EBITDA - FYE - 2	EBITDA - FYE - 3
Ford Motor Co	$151,800,000,000	$149,558,000,000	$144,077,000,000	$16,113,000,000	$18,679,000,000	$9,114,000,000
Paccar Inc	$17,033,300,000	$19,115,100,000	$18,997,000,000	$2,123,500,000	$3,244,200,000	$2,935,300,000
Autoliv Inc	$10,073,600,000	$9,169,600,000	$9,240,500,000	$1,244,700,000	$1,057,200,000	$1,031,000,000
Navistar International Corp	$8,111,000,000	$10,140,000,000	$10,806,000,000	$230,000,000	$215,000,000	-$175,000,000
Tesla Inc	$7,000,132,000	$4,046,025,000	$3,198,356,000	$478,317,000	-$263,628,000	$116,789,000
Oshkosh Corp	$6,279,200,000	$6,098,100,000	$6,808,200,000	$494,100,000	$518,200,000	$628,100,000
Dana Inc	$5,826,000,000	$6,060,000,000	$6,617,000,000	$502,000,000	$571,000,000	$581,000,000
Meritor Inc	$3,199,000,000	$3,505,000,000	$3,766,000,000	$306,000,000	$237,000,000	$512,000,000
Visteon Corp	$3,161,000,000	$3,245,000,000	$2,586,000,000	$257,000,000	$252,000,000	$248,000,000
Wabco Holdings Inc	$2,810,000,000	$2,627,500,000	$2,851,000,000	$497,500,000	$409,100,000	$458,200,000

Company	Net Income - FYE - 1	Net Income - FYE - 2	Net Income - FYE - 3	EPS - FYE - 1	EPS - FYE - 2	EPS - FYE - 3
Ford Motor Co	$4,596,000,000	$7,373,000,000	$1,231,000,000	$1.16	$1.86	$0.31
Paccar Inc	$521,700,000	$1,604,000,000	$1,358,800,000	$1.49	$4.52	$3.83
Autoliv Inc	$567,100,000	$456,800,000	$467,800,000	$6.43	$5.18	$5.08
Navistar International Corp	-$97,000,000	-$184,000,000	-$619,000,000	-$1.19	-$2.25	-$7.60
Tesla Inc	-$674,914,000	-$888,663,000	-$294,040,000	-$4.68	-$6.93	-$2.36
Oshkosh Corp	$216,400,000	$229,500,000	$309,300,000	$2.94	$2.94	$3.66
Dana Inc	$640,000,000	$159,000,000	$319,000,000	$4.38	$1.00	$1.97
Meritor Inc	$573,000,000	$64,000,000	$249,000,000	$6.36	$0.66	$2.55
Visteon Corp	$75,000,000	$2,284,000,000	-$295,000,000	$2.14	$54.00	-$6.44
Wabco Holdings Inc	$223,000,000	$275,200,000	$291,500,000	$4.00	$4.76	$4.87

Company	Total Current Assets - FYE - 1	Total Current Assets - FYE - 2	Total Current Assets - FYE - 3	Long-Term Debt - FYE - 1	Long-Term Debt - FYE - 2	Long-Term Debt - FYE - 3
Ford Motor Co	$108,461,000,000	$102,587,000,000	$39,020,000,000	$13,222,000,000	$11,060,000,000	$79,999,000,000
Paccar Inc	$4,872,200,000	$5,385,700,000	$5,272,900,000	$8,475,200,000	$8,591,500,000	$8,230,600,000
Autoliv Inc	$4,140,900,000	$4,038,300,000	$4,136,200,000	$1,323,600,000	$1,499,400,000	$1,521,200,000
Navistar International Corp	$3,759,000,000	$4,620,000,000	$5,013,000,000	$3,997,000,000	$4,147,000,000	$3,929,000,000
Tesla Inc	$6,259,796,000	$2,782,006,000	$3,180,073,000	$5,978,284,000	$2,068,378,000	$1,876,981,000
Oshkosh Corp	$2,417,500,000	$2,377,100,000	$2,384,300,000	$826,200,000	$844,300,000	$875,000,000
Dana Inc	$2,284,000,000	$2,431,000,000	$2,954,000,000	$1,595,000,000	$1,553,000,000	$1,588,000,000
Meritor Inc	$905,000,000	$1,042,000,000	$1,292,000,000	$982,000,000	$1,036,000,000	$948,000,000
Visteon Corp	$1,708,000,000	$4,053,000,000	$3,134,000,000	$346,000,000	$346,000,000	$587,000,000
Wabco Holdings Inc	$1,874,000,000	$1,386,400,000	$1,161,700,000	$958,900,000	$498,700,000	$307,100,000

Company	Return on Equity (Most Recent Yr)	Profit Margin (Most Recent Yr)	Date FYE - 1	Date FYE - 2	Date FYE - 3
Ford Motor Co	15.76	3.03	31-Dec-2016	31-Dec-2015	31-Dec-2014
Paccar Inc	7.70	3.06	31-Dec-2016	31-Dec-2015	31-Dec-2014
Autoliv Inc	15.42	5.63	31-Dec-2016	31-Dec-2015	31-Dec-2014
Navistar International Corp	1.83	-1.20	31-Oct-2016	31-Oct-2015	31-Oct-2014
Tesla Inc	-14.20	-9.64	31-Dec-2016	31-Dec-2015	31-Dec-2014
Oshkosh Corp	10.95	3.45	30-Sep-2016	30-Sep-2015	30-Sep-2014
Dana Inc	55.32	10.99	31-Dec-2016	31-Dec-2015	31-Dec-2014
Meritor Inc	-271.56	17.91	30-Sep-2016	30-Sep-2015	30-Sep-2014
Visteon Corp	12.80	2.37	31-Dec-2016	31-Dec-2015	31-Dec-2014
Wabco Holdings Inc	31.79	7.94	31-Dec-2016	31-Dec-2015	31-Dec-2014

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Company	Country	Ticker	Exchange	Primary SIC	Other SICs				
Magna International Inc	Canada	MGA	TSX	3714	3465	5012			
Bombardier Inc	Canada	BBD MVA	TSX	3799	3721	3728	3724	3743	4789
Linamar Corp	Canada	LNR	TSX	3714	3549	3523	3711		
Martinrea International Inc	Canada	MRE	TSX	3999	3541	3699	3542	5013	
Uni Select Inc	Canada	UNS	TSX	5013	5531	5599			
Napec Inc	Canada	NPC	TSX	3714	3429	3629			
McCoy Global Inc	Canada	MCB	TSX	3715	3714	7539	3533	3799	
GreenPower Motor Co Inc	Canada	GPV	TVX	3711	3713				

Company	Total Revenue - FYE - 1	Total Revenue - FYE - 2	Total Revenue - FYE - 3	EBITDA - FYE - 1	EBITDA - FYE - 2	EBITDA - FYE - 3
Magna International Inc	$36,445,000,000	$32,134,000,000	$34,403,000,000	$3,971,000,000	$3,563,000,000	$3,582,000,000
Bombardier Inc	$16,343,000,000	$18,172,000,000	$20,073,000,000	-$208,000,000	-$4,897,000,000	-$421,000,000
Linamar Corp	$4,485,372,029	$3,724,311,919	$4,832,417,182	$778,148,128	$634,084,413	$802,269,289
Martinrea International Inc	$2,954,234,816	$2,784,033,377	$4,167,266,693	$230,655,325	$220,169,819	$296,841,953
Uni Select Inc	$1,197,319,000	$1,355,434,000	$1,784,359,000	$121,105,000	-$42,338,000	$114,876,000
Napec Inc	$247,663,327	$252,737,899	$255,017,894	$14,648,180	$7,713,233	$7,558,165
McCoy Global Inc	$20,099,094	$58,877,837	$139,678,001	-$26,033,013	-$2,467,403	$22,875,328
GreenPower Motor Co Inc	**N/A**	$10,696	$17,884	-$2,635,719	-$1,638,389	-$4,396,826

Company	Net Income - FYE - 1	Net Income - FYE - 2	Net Income - FYE - 3	EPS - FYE - 1	EPS - FYE - 2	EPS - FYE - 3
Magna International Inc	$2,031,000,000	$2,013,000,000	$1,882,000,000	$5.19	$4.94	$4.41
Bombardier Inc	-$981,000,000	-$5,340,000,000	-$1,246,000,000	-$0.48	-$2.58	-$0.74
Linamar Corp	$388,989,942	$314,398,406	$371,211,667	$5.96	$4.83	$5.73
Martinrea International Inc	$68,459,306	$77,163,403	$103,544,617	$0.80	$0.90	$0.97
Uni Select Inc	$58,265,000	-$40,221,000	$50,125,000	$1.37	-$0.94	$1.18
Napec Inc	$1,699,175	-$2,009,482	-$1,865,085	$0.02	-$0.03	-$0.02
McCoy Global Inc	-$26,744,696	-$7,903,322	$20,852,285	-$0.97	-$0.29	$0.75
GreenPower Motor Co Inc	-$2,813,217	-$1,739,866	-$4,472,676	-$0.03	-$0.02	-$0.08

Company	Total Current Assets - FYE - 1	Total Current Assets - FYE - 2	Total Current Assets - FYE - 3	Long-Term Debt - FYE - 1	Long-Term Debt - FYE - 2	Long-Term Debt - FYE - 3
Magna International Inc	$10,163,000,000	$11,144,000,000	$9,862,000,000	$2,394,000,000	$2,327,000,000	$812,000,000
Bombardier Inc	$11,296,000,000	$12,105,000,000	$13,119,000,000	$8,738,000,000	$8,908,000,000	$7,627,000,000
Linamar Corp	$1,595,257,187	$1,253,517,765	$1,527,306,262	$914,196,490	$386,929,399	$503,154,162
Martinrea International Inc	$713,383,470	$717,068,929	$1,048,046,477	$516,209,265	$484,994,088	$758,399,240
Uni Select Inc	$538,576,000	$512,458,000	$777,084,000	$130,572,000	$87,722,000	$210,462,000
Napec Inc	$75,143,113	$80,754,056	$89,270,990	$36,941,206	$23,748,501	$7,698,525
McCoy Global Inc	$45,570,056	$63,092,654	$112,351,283	N/A	N/A	N/A
GreenPower Motor Co Inc	$1,319,706	$3,328,209	$2,894,926	$1,022,553	$472,927	N/A

Company	Return on Equity (Most Recent Yr)	Profit Margin (Most Recent Yr)	Date FYE - 1	Date FYE - 2	Date FYE - 3
Magna International Inc	20.79	5.57	31-Dec-2016	31-Dec-2015	31-Dec-2014
Bombardier Inc	18.71	-6.00	31-Dec-2016	31-Dec-2015	31-Dec-2014
Linamar Corp	20.17	8.67	31-Dec-2016	31-Dec-2015	31-Dec-2014
Martinrea International Inc	11.08	2.32	31-Dec-2016	31-Dec-2015	31-Dec-2014
Uni Select Inc	12.33	4.87	31-Dec-2016	31-Dec-2015	31-Dec-2014
Napec Inc	2.24	0.69	31-Dec-2015	31-Dec-2014	31-Dec-2013
McCoy Global Inc	-60.07	-133.06	31-Dec-2016	31-Dec-2015	31-Dec-2014
GreenPower Motor Co Inc	-129.21	N/A	31-Mar-2017	31-Mar-2016	31-Mar-2015

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