

The Road Ahead

2011

Automotive Industries Team – U.S. Department of Commerce

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Road Ahead 2011

Overview

In 2010, the economy experienced moderate growth, which helped the U.S. automotive industry begin to recover from one of the most difficult years in its history. Overall, the U.S. light vehicle market grew 11 percent in 2010, with sales of 11.5 million vehicles. Sales of light trucks increased 18.4 percent and sales of passenger cars grew 4.3 percent. For 2011, auto analysts are forecasting additional growth with sales of approximately 13 million units. Light vehicle production also increased 36 percent last year and U.S. motor vehicle manufacturing employment increased slightly.

All of the Detroit Three improved their financial performance in 2010. GM and Chrysler are recovering since emerging from bankruptcy in 2009, both in terms of sales and their bottom lines. Ford earned its largest profit in more than a decade, and resumed its position as the second top-selling automaker in the United States. GM earned its first profit since 2004, and its largest profit since 1999. Hyundai and Kia continue to increase their competitive position, more than doubling their combined market share in just seven years, from 3.8 percent in 2003 to 7.7 percent in 2010.

While Toyota remained the global sales leader in 2010, the automaker was the only top-ten automaker in the United States to have lower U.S. sales. The automaker made headlines after U.S. consumers complained about sudden acceleration problems, which resulted in recalls of approximately 12 million vehicles, fines paid to the National Highway and Traffic Safety Administration (NHTSA), suspended sales, and damage to Toyota's reputation for high quality. In total, automakers had 648 recall campaigns in 2010, the second highest in history.

Automakers now have a number of additional fuel-efficient vehicles as options for consumers, and they continue to invest in advanced technology in order to meet future regulations. The first of a new generation of electric vehicles, Chevrolet Volt and Nissan Leaf, were introduced to the U.S. market at the end of the year. As brands like Mercury, Pontiac, Saturn, and HUMMER were phased out from the market, a number of newcomers, such as Think, Tesla Motors, and Coda Automotive are gearing up to enter or expand production and entry into the U.S. market.

The Current State of the Detroit 3

General Motors

Following a tumultuous 2009 when its survival was at stake, General Motors was able to improve its performance in 2010 by increasing its U.S. sales by 7.2 percent, and earning \$4.7 billion, its first full year profit since 2004. By the end of 2010, GM returned almost half the amount that Treasury invested in the company (much of which came from a successful initial public offering in November), made a number of investments in its U.S. plants and in advanced technology, continued to make changes to its management and organizational structure, and started production and delivery of the long-anticipated Chevrolet Volt.

In 2010, GM was once again the top-selling automaker in the United States, with sales of 2.2 million vehicles. The automaker introduced several new models and was the largest seller of the popular crossover segment. Compared to 2009, Buick's sales were up 51.9 percent; Chevrolet's sales were up 16.8 percent; GMC's sales were up 31.7 percent; and, Cadillac's sales were up 34.7 percent. GM's passenger car sales of its four remaining brands (Chevrolet, Buick, GMC and Cadillac) were 804,511, an increase of 20 percent; and, full-size pickup truck sales were 520,444, an increase of 17 percent. GM reported that its U.S. crossover sales totaled 567,458, an increase of 50 percent compared to 2009. The segment represented 26 percent of the company's sales volume.

Reorganization Continues

To focus on its four remaining brands, the automaker continued to sell or wind down unwanted business units throughout the year. In February, GM finalized the sale of Saab to Dutch sports car maker, Spyker Cars NV, as well as finalized the sale of Nexteer, the former Delphi Saginaw Steering Systems, to China's Pacific Century Motors in November. Nexteer had become a GM subsidiary when Delphi emerged from bankruptcy in 2009. In addition, GM announced in February it would begin to wind down its Hummer operations after China's Sichuan Tengzhong Heavy Industrial Machines Co., Ltd. was unable to acquire the brand. The automaker also closed its Livonia (MI) Engine Plant and its Fredericksburg (VA) Powertrain Plant. Throughout the year, GM continued to sell off the remaining inventory of its former Hummer, Saturn and Pontiac brands. Since Saab was sold, its sales have been reported separately.

In December 2009, Congress required an arbitration process for dealers that GM and Chrysler wanted to terminate during their bankruptcy processes. GM announced it concluded the arbitration process in August. By November 1, the automaker planned to have approximately 4,500 U.S. dealerships, a decrease of nearly 25 percent compared to early 2009. In addition, GM reported that many of its remaining dealers agreed to upgrade and update their facilities.

GM completed its acquisition of AmeriCredit Corp. on October 1 for approximately \$3.5 billion, and renamed the company General Motors Financial Company, Inc. (GM Financial). GM intends for GM Financial to form the foundation of its plan to re-create an in-house financing arm and to offer consumers additional financing and leasing options.

In 2010, GM made great strides in paying off its government loans and reducing the equity stakes of the U.S., Canadian, and Ontario governments. In April, GM made a final payment of \$5.8 billion towards its loans totaling \$8.4 billion provided by U.S. Treasury and Export Development Canada. In November 2010, sixteen months after emerging from bankruptcy, GM returned to the New York Stock Exchange with an initial public offering totaling \$23.1 billion, the world's largest IPO. The U.S. Treasury announced in December that it received \$13.5 billion from the initial public offering. Treasury still owns 500 million shares of the automaker, and, depending on market conditions, aims to sell its remaining stake within the next two years. Of the \$49.5 billion invested in GM by Treasury, \$23.1 billion was returned as of December 2010, through repayments, interest, and dividends.

GM made a number of leadership changes and altered its organizational structure following its bankruptcy in 2009, and the changes continued in 2010. Starting at the top, it was announced in August that Dan Akerson would replace Edward Whitacre, Jr. as GM's chief executive officer on September 1, 2010, and replace Whitacre as chairman of the board by the end of 2010.

Mr. Akerson had served on GM's board of directors since July 2009. His experience includes serving as a managing director at the Carlyle Group, and as chairman and chief executive officer of XO Communications, Nextel Communications, and General Instrument Corporation. In March 2010, GM's North America president, Mark Reuss, announced changes, including separating GM North America's sales and marketing into two organizations and making changes to its sales and marketing leadership positions by removing layers and increasing accountability. Also in March, a number of finance-related leadership changes were announced to help prepare GM for its return to public ownership and further advance the company's financial progress. On May 1, Robert Lutz, who was a major influence on GM's product development for the previous nine years, retired. Joel Ewanick, who previously held top marketing positions at Hyundai and Nissan, became GM's Vice President of U.S. Marketing in May, and subsequently became the automaker's first Global Chief Marketing Officer in December.

No big changes to management were made in the fall by CEO Akerson leading up to GM going public. However, in January 2011, there was some shuffling and announcements regarding top management aimed at speeding up product development and furthering the globalization of the company's operations. Major new appointments include: the creation of a global chief technology officer position, a new head of global product development, a new president of OnStar, and a new vice president of U.S. marketing.

New Technologies

To meet fuel economy and reduced emission standards, as well as improve competitiveness, GM continues to invest and further develop its advanced technologies. In June, GM established General Motors Ventures, LLC to help the company identify and develop innovative automotive technologies. The subsidiary's initial funding was \$100 million.

The Chevrolet Volt, one of GM's most anticipated products, began to be delivered to customers in select states in December. The Volt, which was awarded 2011 North American Car of the Year, has a total range of 379 miles. It uses electricity stored in a lithium-ion battery for the first 35 miles, and then is able to run another 344 miles using a gas powered engine/generator. The vehicle is assembled at GM's Detroit-Hamtramck plant and its battery is produced at GM's Brownstown (MI) Battery Pack Assembly Plant. Going forward, GM expects electrified vehicles to make up ten percent of its products in ten years.

To deal with rapid urbanization, increased emissions, and more demand for personal mobility globally, GM developed the Electric Networked Vehicle (EN-V) concept. The two-wheeled vehicle was unveiled in March and showcased at the 2010 Expo Shanghai. The EN-V's compact size allows for several of the vehicles to fit into the same amount of space as one traditional car. In January, GM received a \$7.7 million grant from the U.S. Department of Energy (DOE) to accelerate the development of four technologies to improve the fuel economy by at least 25

percent and meet future emissions standards. The project will primarily take place at GM's advanced engineering center in Pontiac, Michigan.

GM has formed a number of partnerships to help develop and introduce new technology. GM and NASA are working together to accelerate development of the next generation of robots and related technologies that could help astronauts during hazardous space missions and to help GM build safer cars and plants. In March, GM announced a five-year partnership with DOE to help develop the potential of jatropha plants, which produce oil that can be refined into biodiesel. Chevrolet announced in March that it was joining with New York's Con Edison to introduce electric vehicles to New York City through a development and demonstration program. Chevrolet has also partnered with other utility providers in the Volt's introductory markets as well as the Electric Power Research Institute to help introduce customers to electric vehicles and establish vehicle charging programs. These programs received funding from a grant of more than \$30 million as part of the American Recovery and Reinvestment Act, and are administered by DOE.

In May, GM announced it was collaborating with The Gas Company (TGC) of Hawaii to help bring hydrogen-powered fuel cell transportation and the necessary infrastructure to the state. The automaker announced in August that it agreed to a strategic relationship with Bright Automotive (IN) to help accelerate the introduction of advanced propulsion and light-weight technologies for commercial vehicles. GM also announced in August that it is expanding its partnership with China's SAIC Motor to develop a small-displacement gasoline engine family and an advanced transmission that will improve fuel economy and reduce CO2 emissions. In addition, GM announced that it invested \$5 million to help create the National Tire Research Center at Virginia Tech Transportation Institute to accelerate the development of tire technology, improve safety, lower emissions, and improve fuel economy. In September, it was announced that GM and ABB Group, the largest supplier of power grid systems, will work together to develop pilot projects for re-using the Volt's batteries, to see if the batteries may be a source for renewable energy that could improve the effectiveness of wind and solar power generation.

Reinvesting in Domestic Operations

Throughout 2010, GM made a number of announcements regarding new or retained U.S. employment and U.S.-based investments. In January 2011, the automaker reported that since July 2009, it has announced investments of more than \$3.6 billion at 24 facilities in the United States and Canada that will restore or create more than 11,300 jobs. Many of these investments are related to GM's advanced technologies, new vehicles, as well as in response to increased demand for existing vehicles.

For example, in January 2010, GM announced it would invest approximately \$246 million in electric motor and electric drive manufacturing, including constructing a high volume electric drive production facility at its White Marsh (MD) transmission plant. The investment created approximately 200 jobs. The White Marsh plant will begin to manufacture electric motors for GM's Two-mode Hybrid system in 2013.

In February, GM announced it would invest more than \$494 million and create almost 550 jobs to produce the next generation Ecotec engine at its Tonawanda (NY), Defiance (OH), and Bay City (MI) plants. The investment includes facility renovation, new machinery, equipment and special tooling. GM also stated that it would add 1,200 jobs to its Lordstown (OH) plant during the third quarter by adding a third shift to produce the new 2011 Chevrolet Cruze. In addition, GM's Fairfax (KS) assembly plant added a third shift of approximately 1,050 jobs due to increased demand of the Chevrolet Malibu and Buick LaCrosse.

In April, GM announced it would invest \$136 million at its assembly plant in Fairfax (KS) and \$121 million at its assembly plant in Hamtramck (MI) to prepare for the next generation Chevrolet Malibu. The automaker also announced that it would invest more than \$890 million to produce a new generation of fuel efficient small block truck and car engines. The investments will create or retain more than 1,600 jobs in five North American plants: Tonawanga (NY), Defiance (OH), Bedford (IN), Bay City (MI), and St. Catharines, Ontario. The investments include facility renovation, installation of engine machining and assembly equipment, special tooling, and expansion of semi-permanent mold and precision sand casting technologies.

In September, GM announced it would spend \$483 million and add 483 jobs to build its current- and next-generation Ecotec four-cylinder engines at GM's Spring Hill (TN) powertrain complex. GM also announced in September that it will invest \$23.5 million and create 11 jobs for additional production of vehicle electrification components at its White Marsh (MD) transmission plant.

In October, GM announced a \$145 million investment to retool its Orion (MI) assembly plant, helping to retain 1,550 jobs. The plant will assemble Chevrolet's new small car and Buick's future compact sedan, the Verano. The investment will also help retain 120 jobs at GM's Pontiac Metal Center. Also in October, GM announced a \$37 million investment at its Lansing Delta Township assembly plant. The investment is for tooling and equipment to enhance the plant's manufacturing capabilities. In addition, GM announced a \$190 million investment in its Lansing Grand River assembly plant for the production of an all-new small Cadillac model. The investment will create 600 jobs and result in the addition of a second shift.

In November, GM announced that it will add 1,000 engineers and researchers in Michigan over the next two years to develop, validate and manufacture automotive battery, electric motor and power control technologies in-house as core competencies. GM also announced that it will invest a total of \$163.2 million in its Flint (MI), Bay City (MI), and Defiance (OH) plants, and will retain 184 jobs. The investment will support increased production of the Ecotec engine for the Chevrolet Cruze and a variant used in the Chevrolet Volt.

Forecast

Financial analysts are forecasting that GM will have increased profits over the next few years. In addition to GM's turnaround in North America, its competitive position in emerging markets also has contributed to industry and financial analysts being optimistic about the automaker's future potential. GM's international activities have become increasingly important to the automaker's bottom line. Almost three-quarters (73 percent) of the automaker's sales are now

outside of the United States, and GM is looking to international sales for growth, particularly in developing markets such as China, Brazil, India and Russia. The automaker reported global sales of 8.4 million vehicles in 2010, an increase of 12.2 percent, compared to 2009. Its top-selling market is now China, followed by the United States, Brazil, the United Kingdom, Germany, Canada, and Italy.

GM Daewoo, which will change its name to GM Korea, has become instrumental for GM's development and assembly of small cars and to the automaker's growth in both mature and emerging markets. Meanwhile, GM Europe continues to restructure, and its losses (\$1.8 billion in 2010) have hindered GM's turnaround. Another remaining concern is the automaker's global pension liability (almost \$30 billion as of September 30). GM's contributions of cash and stock and investment growth in the fourth quarter of 2010 are expected to have lowered its liability, and GM management aims to fully fund the pension plan.

Chrysler

During its recent history, Chrysler has experienced several cycles of booms and busts. Chrysler was saved from bankruptcy by the United States Government in 1979. Chrysler paid back the loan early and went on to several years of success. By the mid-1990's Chrysler was seen as a strong and growing company causing it to become an acquisition target by Daimler-Benz. Daimler-Benz owned Chrysler from 1998 to 2007, and then it was purchased by Cerberus Capital Management. In 2009, Chrysler declared bankruptcy, saw its sales fall 36 percent, its market share fall to 8.4 percent and began an alliance with Fiat. 2010 brought a turnaround and Chrysler's prospects improved, its market share increased to 8.8 percent in what Chrysler hopes to be a long term recovery.

On December 19, 2008, Chrysler received \$4 billion of the \$13.8 billion in emergency loans from the \$700 billion Troubled Asset Relief Program (TARP). As conditions for its loan, Chrysler submitted plans to demonstrate its viability. Chrysler filed for bankruptcy on April 30, 2009. By May 31, Chrysler's reorganization was approved. On June 10, the Chrysler-Fiat alliance became official. Fiat CEO Sergio Marchionne became CEO of the renamed Chrysler Group LLC.

Fiat recently raised its stake in Chrysler to 25 percent, by achieving the first of three government-required milestones: manufacturing a fuel-efficient engine in the United States. Marchionne reportedly stated he would like to take Chrysler public by the end of this year, and hopes to raise its stake to 35 percent by the end of 2012. Fiat will likely own 51 percent of the company if it meets specific financial and developmental goals. The U.S. and Canadian governments (national and Ontario province combined) hold minority stakes of 8 percent and 2 percent, respectively. Chrysler has received about \$13.8 billion in total aid. Chrysler has pledged to repay its loans by 2014. It is scheduled to pay back the first \$2.1 billion by the end of 2011. Currently, a UAW trust fund owns the majority of Chrysler equity.

Chrysler employment declined from 123,000 to approximately 69,000 during the Daimler years, a 45 percent decline. At the end of 2006, Chrysler employed 82,280 people worldwide, with 64,750 employees in the United States. By June 2009, worldwide employment had decreased to

47,800 with 32,250 in the United States. Since partnering with Fiat, Chrysler has begun work overhauling its model lineup and has hired 5,000 employees, including 500 engineers. In December 2010, Chrysler announced that it will hire another 1,000 employees to work on its new lineup. Fiat currently employs over 80,000 people in Italy and 190,000 worldwide.

Comeback Strategy

Sergio Marchionne has continued to succeed with the Chrysler – Fiat experiment when many saw little chance of success. Since taking over Fiat, Marchionne turned Fiat losses into healthy profits. Mr. Marchionne has reduced Fiat's managerial bureaucracy and changed its tone to a focus on markets and profit. He has pushed this philosophy beyond Fiat to include Chrysler.

In 2009, Marchionne stated, regarding Chrysler, “Our goals are simple. We intend to break even this year with an operating profit of \$5 billion by 2014. We believe sales will reach 2.8 million units by that date as well. Our goal is \$65 billion to \$70 billion in revenue by 2014, driven by a 20 percent compound annual growth rate.”

So far Chrysler has exceeded its targets. Chrysler generated operating profits of \$763 million in 2010, up from its original expectation of break even to \$200 million for the full year. Although Chrysler is still reporting a net loss for 2010 (\$652 million), due to interest payments on debt, the results show a steady improvement for Chrysler. Chrysler paid almost \$900 million in interest expense for the first 9 months of 2010. Chrysler's profitability is further supported by an increasing average transaction price that increased by 6.4 percent above last years' average transaction price.

Chrysler plans to build cars in North American for export around the world. In addition to the Grand Cherokee, Chrysler plans to relaunch the Alfa Romeo brand with several models that will be built in North America and sold around the world. In addition, several Dodge and Chrysler-based models will be built here, exported to Europe and rebadged as Fiats and Lancias.

With new products in the showrooms, Chrysler has begun recovering market share lost over the last few years. Chrysler is targeting 13 percent market share for the United States compared with its current 8.8 percent, (Chrysler had 8.4 percent market share in 2009). This would more than double its domestic market sales from 927,200 units sold in 2009 to nearly 2 million units. In 2010, Chrysler sold 1,079,734 vehicles in the United States. Worldwide, the Chrysler group sold 1.6 million units with a goal of 2 million units for 2011.

Under Marchionne's plan, increasing sales outside of North America will be key for Chrysler's efforts to reduce its dependence on one region and achieve profitability. The Fiat Group and Chrysler Group will sell a combined 5.5 to 6 million vehicles worldwide by 2014. The Chrysler Group will account for 2.8 million of the total. Chrysler is projecting to increase its foreign sales from the 144,000 units in 2009, to 500,000 by 2014. Chrysler sold 11,500 cars in Europe in 2009. Foreign sales will represent 18 percent of total sales up from 11 percent currently. This is projected to require a 25 percent increase in Chrysler's dealership networks internationally. Currently, Chrysler has 1,580 dealerships outside North America, 1,100 of which are in Europe.

Chrysler-Fiat is looking to Russia, China and Brazil for increased sales. To reach their sales goals Fiat will invest \$3.3 billion to expand the capacity of its Russian joint venture to 500,000 units annually. Fiat also plans to increase its Chinese capacity to 220,000 units with its new joint venture partner, Guangzhou Automobile. Brazil, Fiat's largest market, will receive several new models that will keep Fiat Brazil's largest automaker.

Chrysler's profitability will also depend on cutting costs. Major savings will be achieved by sharing suppliers with Fiat. Chrysler plans to share two-thirds of its suppliers with Fiat by 2014. Currently, they have half of their suppliers in common. By achieving this efficiency, Chrysler expects to cut its costs by \$2.9 billion over the next three years, starting with a reduction of \$500 million in 2011.

New Products

Chrysler's success, thus far, can be attributed to cost cutting, sharing vehicle development costs with Fiat, and sales of new and updated vehicles that are finally coming to market. The plan builds on synergies between Chrysler and Fiat, especially in terms of introducing new models. Chrysler says that as a result of this partnership, it will see 75 percent of the current lineup enhanced within the next 14 months and all vehicles will be 100 percent refreshed and reinvented by 2012. During 2010, Chrysler introduced a new Jeep Grand Cherokee and a refreshed Chrysler 300.

Of the 16 models introduced for the 2011 model year, nine are new vehicles or completely redesigned and seven are significantly restyled. Chrysler plans to launch 21 new models over the five-year period, with approximately 56 percent of its total product range to be built on Fiat platforms by 2014. The new 2011 Jeep Grand Cherokee is also an example of the new philosophy at Chrysler. The Grand Cherokee's new platform, developed with Mercedes-Benz, and based on the ML SUV platform, will also be the platform used by several Chrysler-Fiat models, manufactured at the Jefferson North plant in Detroit and sold around the world. With sales nearly triple the old model, there are plans to use the same platform for a Maserati SUV.

The structural changes will begin in 2012 when the Chrysler and Dodge brands will get a new compact sedan based on Fiat platforms. The Dodge brand will be restructured, to sell only cars, while Ram will sell trucks which were previously branded Dodge. In 2013, Fiat will continue to bring its small car technology to the U.S. group, with a new small model for Chrysler based on the Fiat 'B' platform, a small car for the Dodge brand and two SUVs for the Jeep brand based on the Fiat Panda platform. In addition, beginning in 2012, the Ram brand will sell small and large commercial vehicles based on Fiat models.

During 2011, Chrysler will also introduce its new Dodge Charger and replace the name of its Sebring mid-size sedan with the number: 200, as it upgrades virtually every part of this vehicle from a new suspension to a more powerful, yet quieter, engine. Its Town & Country minivan is also up for changes with reportedly improved handling and features. The Dodge Grand Caravan is also expected to have some upgrades. However, Chrysler announced in early January 2011 that it would be discontinuing one of the minivan models. The Dodge Journey has also received a major overhaul with a completely redesigned and retuned suspension, a new V-6 engine and a

new interior with room from up to five- to seven-passenger seating. The Journey also features the Chrysler Group's new PowerNet electrical architecture: touch-screen command center, and Uconnect Touch. The Uconnect Touch combines everything from navigation to dual-zone climate controls to the ability to check fuel prices. While the completely new 2011 Durango shares its engineering with the Jeep Grand Cherokee, the Durango will offer a third row of seats, which is not offered in the Cherokee.

The 2011 North American Auto Show in Detroit showcased Chrysler's new and refreshed products and highlighted the new 2011 Chrysler 300 and the launch of the 2011 Fiat 500. The very small Fiat 500 Sport, coming to the United States later this year, will have a 1.4 liter engine, sport-tuned suspension and 16-inch wheels. A convertible version will be available next spring but, in the meantime, the 500 Sport will offer an optional front-to-back panoramic sunroof. In addition, the Chrysler 200 Convertible made its worldwide debut at the Chicago Auto Show in early February 2011, and had received many accolades.

The integration between the Chrysler and Lancia brands is also on-track. In 2011, Chrysler intends to export four models from North America and rebadge them as Lancias. Reportedly, during the 2011 Geneva Auto Show in March 2011, a Lancia version of the Chrysler 200 will be unveiled. The model is expected to revive the Flavia nameplate last seen in 1975 and receive only a few modifications, in the form of a new grill, bumpers and the possible mechanical additions of a manual transmission and diesel engine. In addition, a Lancia version of the Chrysler Town & Country/Grand Voyager minivan is expected, and Lancia will likely introduce the new Ypsilon hatchback, which could make its way to the United States as a Chrysler.

This year, Chrysler has the added challenge of managing the launch of a new Fiat dealership network. With gas prices rising, Chrysler also faces a risk because it is heavily reliant on trucks and SUVs. Over the next few years it will begin adding smaller, fuel-efficient models co-engineered with Fiat. Clearly, Chrysler is demonstrating that it is determined to evolve in an ever-changing and competitive global automotive market.

Ford

Finances

On February 28, 2011, Ford announced it posted an annual 2010 profit of \$6.6 billion, or a total of \$1.66 per share for the year. This was a \$3.8 billion improvement from 2009. Pre-tax operating profits for 2010 were \$8.3 billion; an improvement of \$8.3 billion compared to the same period in 2009. Ford posted a profit in all four quarters of 2010 and noted its profit was the highest it has been in the last ten years. In its press release, Ford reported it expects continued pre-tax profits and automotive operating-related cash flow for 2011.

Ford's automotive cash exceeded its debt at the end of 2010 by \$1.4 billion. Ford reduced its debt in the fourth quarter by \$7.3 billion. For the entire year, it reduced its outstanding debt by \$14.5 billion, or 43 percent, which resulted in a savings of approximately \$1.0 billion in interest.

Ford reported worldwide revenue of \$120.9 billion, up \$17.0 billion from 2009. Ford generated positive automotive operating-related cash flow of \$4.4 billion in 2010, an increase of \$5.2 billion from full year 2009. On a worldwide basis, Ford reported a pre-tax profit in 2010 of \$5.4 billion on its North American operations, \$1.0 billion for South America, \$23 million for Asia/Pacific/Africa, and \$182 million in the EU and a loss of \$182 million in other automotive operations.

When current president and CEO Alan Mulally moved to Ford from Boeing Commercial in 2006, Ford was in the weakest financial position of the Detroit 3. Mulally mortgaged nearly everything the company owned, including the Ford name, to borrow money when interest rates were relatively low. The timing was excellent since one to two years later, GM and Chrysler were unable to do the same. A few months before Mulally began, Ford announced a major restructuring plan for its North American operations, naming it the "Way Forward." The purpose was to reduce Ford's North American vehicle capacity to match expected demand and reduce fixed costs. The company announced it would close 14 manufacturing facilities, including seven assembly plants. Approximately 57,000 hourly and salaried positions have been eliminated since that time. As can be seen by the 2010 financial results, the program has served its intended purpose.

Ford received a \$5.9 billion loan from the United States Government in September 2009 and an additional \$250 million in August, 2010, to transform many of its factories into more efficient operations. The funds came from the U.S. Department of Energy's Advanced Technology Manufacturing program for vehicles. The purpose of this program is to support the development of innovative, advanced vehicle technologies which would create clean energy jobs, while reducing petroleum consumption. The loan to Ford was the first since the program was developed in 2008.

Sales

Ford posted a 19.5 percent total increase in U.S. vehicle sales in 2010 over 2009; with U.S. market share increasing from 15.3 percent in 2009 to 16.5 percent in 2010. Although Ford's U.S. market share has been declining since 1986 when it held 21.0 percent of the total, it has greatly reduced the lead held by GM (39.0 percent). In 2010, Ford closed to within a 2.7 percent difference with GM holding 19.2 percent of the U.S. light vehicle market.

Automotive News data show most of this increase in share came primarily at the expense of GM and Japanese nameplates, with Toyota and Honda particularly hit. Ford advertising has emphasized that while GM and Chrysler received financial aid, Ford has been a much more stable company and has needed no assistance from the United States Government. Auto analysts have agreed that the advertising strategy has benefited Ford, and along with other factors, has helped Ford increase sales of vehicles in the United States and Canada. Ford's new model introductions in 2010 also were very popular with U.S. consumers.

Because of Toyota's recent safety problems and millions of recalls, and Ford's widely accepted new products, Ford hopes to continue to increase its U.S. market share in 2011 by bringing more current Toyota owners into its showrooms and selling more vehicles. In addition, Ford has

basically equaled the most popular Japanese nameplates in Consumer Reports recent quality ratings.

Ford's 2011 Explorer was named North American truck of the year by auto journalists at the 2011 Detroit auto show, and auto analysts have given very good reviews to new models that will be introduced during 2011, further increasing the sales and the residual values of Ford products. Last year the new Ford Transit Connect and in 2009 the new F150 pickup truck were successful new products. In 2010 Ford introduced the European-designed Fiesta to the North American market. This small, fuel efficient vehicle has already proved successful in Europe. Now Ford is seeking to expand the vehicles success into the United States and new markets in Asia.

Another encouraging sign for Ford in 2009 was that the residual values of three-year-old Fords increased by an average of \$1,300, the largest in the U.S. auto industry and while 2010 data is not out, auto analysts expect this trend to continue. This represents a narrowing of the gap between Ford and its Asian rivals, and a widening gap with its two domestic competitors—GM and Chrysler. The reason for this increase can be attributed to improved quality, new features, and newly redesigned products that have been widely received by consumers throughout the world.

Employment

Ford announced in early January 2011 that the recent employment trend has been reversed. Ford said that it would hire more than 7,000 additional workers in the next two years. An additional 4,000 hourly workers will be hired in 2011 as well as 750 salaried workers. Most of the salaried workers will be technical hires, mainly engineers. In 2012, Ford estimates it will hire 2,500 more hourly workers and possibly additional salaried employees. The majority of the new hourly workers will make almost half what current union workers are paid because of the new contracts that have been signed in the last three years. The UAW agreed to a two-tiered wage scale, with starting workers making much less than current union members. This will cause the hourly rate and benefits to slowly decrease, making U.S. workers more competitive with some of the other countries where Ford and its competition assemble vehicles.

On January 12, 2011, Ford announced most hourly employees would receive a \$5,000 bonus due to the previous profitable year. This is the largest profit sharing bonus for hourly employees since 2000 when Ford distributed \$8,000. Ford was the only profitable U.S auto company in 2009, and the hourly workers received a \$450 bonus.

In December 2009, Ford offered buyouts to all of its UAW workers. As of January 31, 2010, few UAW workers had accepted the buyouts. Since buyouts had been offered previously, most of the workers who could afford to leave Ford had already departed. Ford also tried to renegotiate its UAW contract, but Ford hourly employees rejected the offer. While Ford announced it would hire an additional 1,200 employees in its Chicago plant in 2010, it also cut 900 hourly jobs at its Flat Rock, MI plant.

In January 2010, Ford reinstated some of the benefits that were taken away previously from

salaried workers. Ford again is paying for college tuition assistance, partially matching 401(k) payments, and giving salaried workers annual merit increases. Salaried workers will also receive a bonus of approximately three percent of their base pay.

Reorganization Continues

Just as GM and Chrysler have done, Ford has cut a core brand from its U.S. product line. It continues to sell the Ford and Lincoln brands. However, Ford announced in 2010 it would no longer produce the Mercury line. For years, the sales of Mercury models had been declining, and all four models sold were merely rebadged Ford models. When introduced in 1939, the Mercury was marketed as a step up from a Ford model, with separate body designs and different mechanics.

Ford is currently making very heavy investments in electric-powered autos and trucks. Ford introduced the all electric Focus prototype at an event in New York and the Electronics Show in Las Vegas in early January, 2011. This model will not have a gasoline engine and will be fully powered by the battery. Ford already produces gasoline-electric hybrids, and plans to sell more models by 2012. Also, a plug-in electric which is coupled to a gasoline engine will go on sale by 2012. The Focus will have all three versions, and will be built in Ford's Wayne, Michigan plant. The hybrid battery packs will be manufactured by Ford's Rawsonville, Michigan plant. Currently, these battery packs are produced in Mexico. Ford will also introduce a hybrid Transit Connect van in the United States in late 2011 which will be assembled by AM General located in Livonia, Michigan. To help sell the vehicle, Ford will give the first 5,000 buyers a free home charging station.

During the last four years, Ford has sold its Aston Martin, Jaguar, and Land Rover operations. The last foreign-based brand Ford owned, Volvo, was sold in late 2010 to Geely Automotive based in China. In addition, Ford sold most of its share of Mazda in late 2010. It now only owns 3.5 percent compared to about 33 percent a few years ago.

Forecast

In the opinion of industry experts, Ford faces three major challenges for 2011 and beyond. Ford owes more debt than GM or Chrysler (due to the elimination of most GM and Chrysler debt due to bankruptcy), it has higher hourly costs, and the U.S. and worldwide economy still is very uncertain.

According to Ford releases, it plans to invest more than \$9.0 billion globally in the near future. This would include \$4.5 billion in North and South America, \$2.9 billion in Europe, and \$1.7 billion in Asia/Pacific/Africa. A new Focus will be introduced in 2011 and sold globally. The new EcoBoost family of engines will become widely available not only in North America, but other non-North American markets. Ford is predicting a U.S. light vehicle market of at least 13.0 million in 2011, and expects to increase its U.S. share of the market.

Foreign-Based Automakers Update

European Manufacturers

In light of the downturn in the global economy, which has disproportionately affected European manufacturers of premium brands, European manufacturers are seeking to maximize opportunities with their U.S. automotive investments. Aided by a strong euro and a weak dollar, Volkswagen will begin its U.S. operations this year, manufacturing a car for the North American market. Overall, the Europeans are quickly becoming more important players in the U.S. market, and given the strong euro, making more vehicles in the United States will help shield manufacturers from currency swings and reduce shipping costs.

A priority for European luxury manufacturers is light-weighting vehicles to reduce emissions and create more fuel efficiency. For example, as BMW and Mercedes go down the road to developing electric vehicles, they are also looking to reduce vehicle weight by removing steel and aluminum, and introducing carbon fiber reinforced plastic (CFRP). Steel is reportedly 50 percent heavier than CFRP and aluminum is 30 percent heavier. Because development of carbon fiber parts is still a very expensive process, the European luxury vehicle manufacturers have an edge. While BMW is partnering with Germany's SGL Group on its Megacity electric vehicle (due to be launched in 2013) Mercedes is collaborating with Japan's Toray Industries for carbon fiber. Daimler is reportedly looking to reduce weight in its Mercedes models by at least 10 percent, but is not yet naming the models.

BMW

BMW has comfortably maintained its lead in the global luxury car segment with sales of 1.46 million units in 2010, followed by Mercedes (at 1.17 million units) and Audi (at 1.09 million units). While the competitive landscape for the premium segment remained unchanged, the results show that the competition between Mercedes and Audi for second position is heating up, with both companies posting 15 percent year-on-year increases. BMW head of sales and marketing, Ian Robertson, claims that BMW intends to sell more than 1.5 million vehicles in 2011, with record sales during 2011 for all three brands - BMW, Mini and Rolls-Royce.

Moreover, BMW North America's CEO Jim O'Donnell expects BMW's sales in the United States to overtake German sales in 2011. He predicts that the recovery of the U.S. economy, coupled with the expected strong sales of the revamped X3 SUV, will position the company to excel in the United States. BMW's sales in the United States and Germany in 2010 were 265,757 and 266,009 units, respectively. During 2009, BMW's U.S. production fell nearly 29 percent, from 170,739 units in 2008 to 121,666. However, its overall U.S. production share increased by 0.2 percent, from 2.0 to 2.2 percent of total U.S. production. In 2010, production increased 26.3 percent to 153,646 units, but this amounted to only 2.0 percent of the entire U.S. light vehicle production market.

BMW's plans to double its U.S. capacity are on track, despite a down market. By 2012, BMW will have spent over \$1 billion in the United States by expanding office and distribution centers, as well as plant upgrades. During 2009, BMW celebrated 15 years at its Spartanburg, South

Carolina plant, and celebrated production of its 1.5 millionth vehicle at the facility. It also began production of the X5 M and X6 M, as well as the Active Hybrid X6. Production of diesel versions of the X5 for the U.S. market began in late 2008, so BMW is clearly well-positioned to compete in these emerging technology segments, as well. With the addition of the X3 small SUV during 2010, the plant has become the main source of BMW SUVs sold around the world, which has increased its U.S. exports.

In fact, during 2010, BMW achieved the status as the largest non-NAFTA U.S. exporter, mainly because its Spartanburg facility is a global SUV hub, with China ranking as its top market for the X6 crossover. BMW's exports were reportedly worth \$4.4 billion during 2010, and it plans to export 70 percent of its target output of 240,000 units in 2011. The U.S. plant takes in orders from 130 countries, and produces both right-hand drive SUVs for customers in Japan and Britain, and left-hand drive for most other countries. BMW also sustains its environmental commitment by generating half of the plant's energy from methane gas at a nearby landfill.

BMW has reportedly postponed the launch of its small crossover, the X1, in the United States. The decision came on the back of strong demand for the model in Europe, which has caused supply constraints. The X1 was launched in Europe in November 2009. According to the company, the soonest the crossover will be launched in the United States will be by September 2011.

In February 2011, BMW announced the creation of a sub-brand "BMW i", devoted to sustainability, which would launch its first two vehicles in 2013: an electric city car ("i3") and a rechargeable hybrid car ("i8"). BMW intends to use CFRP to lightweight these vehicles and extend mileage capability. BMW plans to produce these vehicles at its Leipzig plant in Germany.

Daimler and Mercedes

Daimler AG (Mercedes-Benz, Smart, AMG, Maybach, Freightliner, Western Star, Mitsubishi Fuso, Setra, Orion and Thomas Built Buses) is a leading producer of premium passenger cars and the largest manufacturer of heavy- and medium-duty trucks in the world. Daimler sells its products in nearly all countries of the world and has production facilities on five continents, with North America remaining a key location in its global strategy.

Daimler currently relies heavily on its Germany home market and the United States for the majority of its sales (40 percent combined). Since both markets are saturated and the recovery is still underway, it makes sense for Daimler to revisit its corporate strategy and fortify other regions (such as the Middle East) with growing sales.

Daimler has extensive truck and bus manufacturing operations in the United States, but these businesses have been struggling. Daimler produces trucks and buses and parts in North Carolina; trucks in New York; buses in Oregon; and engines and trucks in Michigan. It has a significant footprint across the country in commercial vehicles. It appears, however, that these struggles are waning. For example, in June 2010, Daimler Trucks North America (DTNA)

announced plans to invest \$194 million to expand production of its diesel plant in Redford, Michigan. The project is expected to be completed in September 2011.

Daimler's U.S. passenger car unit, Mercedes-Benz U.S. International (MBUSI), is located in Tuscaloosa, Alabama, and currently produces the second-generation M-Class (the first rolled off the line in 1997), the R-Class Sports Tourer and the GL-Class luxury SUV. The SUVs, which offer diesel Blue TEC technology, are produced exclusively in Alabama and shipped to markets worldwide. Today, the plant has two assembly lines, two paint shops and a body shop. While vehicle capacity at this plant is 160,000 units, Mercedes' production was down nearly 41 percent in 2009 to 90,582 units from 152,561 in 2008. Nonetheless, Mercedes did better than most luxury carmakers in a market that contracted significantly in 2009. Mercedes' share of overall production was only down 0.2 percent (from 1.8 to 1.6 percent) during that time period. Mercedes' 2010 production increased by 37.1 percent to 124,233 units. This production will continue to rise in the coming years given Daimler's decision to re-locate approximately 20 percent of its upcoming C-Class production from Germany to the United States (60 percent of the C-Class production will remain in Germany, with 10 percent in China and 10 percent in South Africa). Since the C-class is Mercedes' best-selling model in the United States, it made strategic sense to incorporate it as part of its model line-up. Daimler states that this move will save the company approximately \$3,000 per vehicle, given lower labor costs in the United States. Daimler also expects this will generate another 1,000 jobs in the United States.

Volkswagen

The Volkswagen Group (VW) consists of Volkswagen, Audi, Bentley, Bugatti, Lamborghini, SEAT, Skoda, Scania, and Volkswagen Commercial Vehicles. VW had record global sales of 7.14 million units in 2010, and is positioned to achieve its goal of overtaking Toyota as the number one global automaker by 2018. It currently stands behind Toyota and GM in the number three position. VW is reportedly the best-financially positioned company after the global economic crisis, and maintains a multi-brand strategy. However, it will need several more profitable years in order to make its goals materialize. VW's "Strategy 2018" relies on a wide product range and reputation for quality and technology to give it relative pricing power vis-à-vis its competitors.

According to Business Monitor International, VW's biggest challenge is its lack of hybrid and electric vehicles (HEVs), which places it strategically behind its competitors. Nonetheless, VW plans to join the EV race during 2011 by launching a hybrid version of its Audi Q5 and limited volumes of its e-tron compact in the following year. By 2013, it expects to make inroads into the mass volume segment by introducing the Passat and Golf hybrids, and its electric e-up minicar. Despite these challenges, VW reportedly intends for these vehicles to account for nearly three percent of its global sales by 2018.

As part of its ambitious goals to be a global leader, Volkswagen is beefing up sales in the United States with its \$1 billion assembly plant in Chattanooga, Tennessee. Despite current market conditions in the United States, Volkswagen is on track to begin production during 2011 with initial capacity at 150,000 passenger cars for the North American market. This investment initially created 2,000 direct jobs and multiple indirect jobs with a supplier park co-located on

premises. During the January 2011 Detroit Auto Show, VW unveiled the model it will start producing in Chattanooga: the Passat. This “Chattanooga-car” is viewed as the cornerstone to VW’s global strategy. Often dubbed as “Mach 18,” VW anticipates tripling U.S. sales to one million by 2018. The car will replace VW’s existing Passat in North America. The sedan is reportedly a little larger than the current Passat, but will cost thousands of dollars less than the current Passat’s \$26,000 base price tag. Final prices will be announced in March, and the market launch is expected by mid-August. The Passat will be offered with three different engine choices: 2.5 liter 5-cylinder gasoline engine; a 3.6 liter 6-cylinder gasoline mill (paired with a dual clutch transmission), and a 2.0 liter TDI clean diesel engine. VW is very confident that Americans will begin to understand the long-term benefits of diesel engines, and is devoting thirty percent of its Chattanooga production to TDI clean diesel technology. The Passat also reportedly has features that will particularly appeal to the American public, including a valet parking key and remote start feature (to either warm-up or cool-down the car before you get into it).

There remains a possibility that Audi production will also occur at this facility, but this decision will be made based on the recovery of the U.S. market. VW clearly wants Audi to join competitors BMW and Mercedes in the top ranks of the world’s luxury vehicle market. As part of its “Strategy 2018,” VW hopes that Audi will sell 200,000 vehicles in the United States, or approximately 20 percent of the one million vehicles it benchmarks for the U.S. market by 2018.

VW also plans to sell hatchback and sedan-versions of its redesigned Polo compact in the United States by 2011. The model will compete with Ford’s European-designed Fiesta (which will also be built and sold in North America by this time), and Asian cars like the Toyota Yaris and Honda Fit (Jazz). With the Passat replacement and Chattanooga production coming on-line this year, Volkswagen anticipates great strides in the United States to achieve its global goals.

Asian Automakers

Honda

Despite a global recession and poor car sales overall, Honda's sales improved in 2010. According to the company, its sales increased by 5 percent globally to over 3.6 million vehicles from dismal 2009 figures of 3.4 million vehicles sold. Its sales improved in Japan by 3 percent to 647,000 vehicles. Sales in China increased by 13 percent to 655,000 vehicles leading to China overtaking Japan as Honda's second largest sales market.

The United States remains Honda's largest market. Its 2010 U.S. sales were at 1.4 million units, up 6 percent from 2009. The Honda Accord was the second best selling U.S. car with 282,530 units sold, while the Civic was the fourth bestselling car with 260,218 units sold. The CR-V also did well as the third best selling light truck in the U.S. market with 203,714 units sold.

The company's Acura line also fared better in 2010, with sales of 133,606 vehicles versus 105,723 vehicles sold in 2009. The MDX SUV increased its sales by 51 percent to 47,210 units, and led the pack of all other Acura sales. The TL and TSX also increased sales in 2010, together making up much of Acura's remaining volume with 34,049 and 32,076, units respectively.

Production has also increased with a rise of 21 percent, to over 3.6 million units. The company continues to shift production outside of Japan, with roughly 73 percent of its global production occurring elsewhere. Nonetheless, it exports nearly a third of its Japanese production, so the strong yen has continued to hurt Honda in 2010. Still, Honda has fared better than some of its Japanese-based corporate rivals due to its comparatively high offshore production. According to Automotive News, the strengthening of the yen reduced Honda's operating profit by \$59 billion in the first 6 months of the Japanese corporate year (April to September) versus \$145 billion for Toyota.

There were several corporate milestones in the United States for Honda last year. Its Marysville, Ohio plant produced its 10-millionth vehicle, while its Lincoln, Alabama plant produced its 2-millionth vehicle. The company began a \$70 million expansion of its transmission facility in Ohio which will enable it to manufacture advanced transmissions to help the firm meet increasingly stringent U.S. fuel economy regulations. The company has much to tout on the environmental and technological front. It is pursuing plans for further hybrid vehicle development, and is nearing production with a hybrid system for larger vehicles. It reportedly will bring a small battery electric commuter vehicle to the market in 2012. In addition, Honda touts the FCX Clarity demonstrator vehicle for its technological firsts, as well as the environmental benefits of its natural gas powered Civic GX. The Union of Concerned Scientists named the firm as the "greenest automaker" for the fifth consecutive year in 2010. The award is based on the tail pipe emissions of each automaker's U.S. automobile fleet. The company also received the Leadership in Energy and Environmental Design "Green Building Certification" for its Greensburg, Indiana welcome center.

Honda's Insight Hybrid did poorly in its U.S. launch in 2009. Honda launched a similar new product in 2010, the Honda CR-Z Hybrid, which was designed to be both sporty and efficient. However, according to Automotive News it has instead received criticism that it has failed to meet either criteria. Like the Insight Hybrid, critics state that there were too many compromises made in its development. However, the company set much lower sales targets for the CR-Z hybrid of 15,000 per year in the United States and around 50,000 per year globally. This contrasts sharply with the targets of 90,000 per year in United States, and 200,000 per year global goals for the Insight.

Sports cars do tend to sell in smaller volumes so it isn't clear whether the expected sales forecast were just lowered to show that the CR-Z's sales exceeded expectations. Nonetheless, sales of the CR-Z have been low. After its late August introduction, it had garnered 5,290 sales by the end of December and its December sales of 876 vehicles were just over half of the Insight's 1,637 sales. Based on these figures, Honda isn't winning large numbers of new buyers with these new products. Concurrently, Honda is facing increased competition in the small, fuel efficient car market where Honda has traditionally flourished, and upon which its "greenest automaker" awards are based. The resurgent Detroit 3 are increasingly turning their sights on this subsector offering many new, well received vehicles, and firms such as Hyundai are continuing to make inroads. According to Automotive News, Honda will likely respond by rolling out all of its various new Civic models within weeks of each other during 2011. This is in sharp contrast to previous roll-outs which have occurred over many months and sometimes years.

The increasingly stiff competition in its main product categories isn't the only headwind the company may face going forward. The UAW's call for unionization of transplant workforces could make the company's labor relations more difficult, and potentially remove any advantages it might still retain in that area versus the Detroit 3.

Hyundai-Kia

Continuing a string of successes, Hyundai/Kia had another good year in the United States in 2010. Hyundai and Kia both set U.S. sales records in 2010, passing their previous records set in 2007. Hyundai sales broke 500,000 for the first time, capturing 4.7 percent of the market. Their combined sales (Kia is a fully-owned subsidiary of Hyundai, and together they are the 5th largest selling automobile company in the world) of 894,496 vehicles were up 22 percent in a market that increased by 11 percent, improving their market share from 7.1 percent in 2009 to 7.7 percent in 2010. Hyundai also had a good year globally in 2010, reporting a 77.8 percent increase in net profits for the year reaching \$4.7 billion.

Individually, Hyundai had sales of 538,228 vehicles in 2010, up 23.7 percent and Kia had sales of 356,268 vehicles, up 18.7 percent. For the past few years Hyundai has matched its import sales and domestically produced sales closely. With 51 percent of the company's U.S. sales being produced in the United States and 49 percent imported, 2010 was no exception. With the rapid increase in production at Kia's new plant, that part of the company is heading towards the same ratio, with 30 percent of sales in 2010 coming from the company's Georgia plant.

Reflecting the growing demand for its products, production at Hyundai's Alabama plant increased 54 percent in 2010 compared to 2009, achieving total production of 300,500 vehicles. In the fall of 2010, Hyundai shifted production of the Santa Fe from its Alabama plant to Kia's Georgia plant, freeing up approximately 100,000 units of capacity at the Alabama plant to meet the need for the increased Sonata production (Sonata sales were up 64 percent in 2010, reaching 197,000 units). The Kia plant also produces the Sorento. Total production at the Kia plant reached 152,361 vehicles in 2010, leaving capacity for approximately 150,000 additional units. According to public sources, Hyundai's U.S. plant employs 2,700 workers, with an additional 3,300 jobs from suppliers. Kia's plant employs 2,400 workers with an additional 7,000 jobs from suppliers (as the Hyundai and Kia plants share multiple suppliers, there may be overlap in the supplier numbers).

In 2008, Hyundai made its first move into the U.S. luxury vehicle market with the introduction of the Genesis. The Genesis is a rear-wheel-drive vehicle with a V6 (optional V8) engine. The car is aimed at competing with the BMW 5 series, the Mercedes Benz E Class and the Lexus GS, but priced closer to \$30,000. The Genesis has been successful, and was named JD Power's most appealing midsize premium car in 2009. Hoping to follow that success, Hyundai introduced the Equus in 2010. The Equus is priced at approximately \$60,000 but is slated to compete with vehicles priced closer to \$100,000, such as the Mercedes S class or BMW 7 Series. Given its price it also competes with other luxury vehicles, but with significantly more features offered than others in its price range. Initial reviews for the Equus are positive, noting its high quality, extensive features and standard included equipment.

In 2011 Hyundai will enter the U.S. hybrid market long after many of its competitors have done so. However, the first reviews of its initial entry – the hybrid Hyundai Sonata - are positive. Hyundai has reported that the hybrid Sonata will have higher total engine output than many competitors, such as the hybrid Toyota Camry and the hybrid Ford Fusion; will be able to operate in an all-electric mode up to 62 miles per hour – faster than any competitor; and will have fuel economy of 36 mpg city/40 mpg highway – slightly below the Fusion’s combined average, and better than all other hybrids in its class (though still well below the smaller Prius); and priced lower than its key competitors including the Fusion and Camry hybrids.

Hyundai experienced an initial surge in popularity in the 1980’s by offering practical, inexpensive entry-level vehicles to U.S. consumers. However, quality problems rapidly began to change the company’s fortunes in the United States. Between 1988 and 1998, Hyundai’s U.S. sales dropped by 66 percent. As Hyundai rebuilt its U.S. operations it began a much stronger focus on quality – a focus that has paid off. According to the JD Power and Associations Initial Quality Survey, in 2010 Hyundai vehicles experienced 102 problems per 100 vehicles, placing them in seventh place overall, and well below the industry average of 109 problems. Hyundai’s next closest competitors in the survey were Lincoln, Infiniti and Volvo.

Mazda

Mazda is Japan’s fifth largest automaker after Toyota, Nissan, Honda and Subaru. While Mazda suffered a large decline in U.S. sales in 2009, its sales in 2010 improved over 10 percent from the previous year to nearly 230,000 units. According to Automotive News, Mazda CEO Takashi Yamanouchi expects U.S. sales to continue rising to 400,000 within the next five years.

To maintain market share and increase sales, many analysts believe that green fuel-efficient technologies, along with subcompact, budget automobiles are the best strategy for Mazda. In early 2010, Toyota and Mazda announced a deal where Toyota will supply Mazda its hybrid technology, and Mazda hopes to begin selling vehicles in Japan by 2013 that combine Toyota’s hybrid technology with Mazda’s next-generation gasoline engine. In 2008, Mazda pledged to improve average fuel economy 30 percent by 2015. In 2011, Mazda announced it will begin implementing its SKYACTIV next-generation technologies, including engines and transmissions, in both Japan and the United States. SKYACTIV refers to Mazda’s next-generation technologies and the first phase is a next-generation direct-injection gasoline engine that is expected to result in a 15 percent increase in fuel-efficiency. Mazda plans to introduce its next-generation clean diesel engine, which is expected to provide a 20 percent improvement in fuel economy in 2012 for Japan, the United States and Europe.

Ford and Mazda have partnered together for over thirty years. The relationship has changed markedly over the years from when Ford acquired a 25 percent equity stake in Mazda in 1979. The partnership was particularly strong in the 90s, and Ford’s share was increased in 1996 to 33.4 percent. However, in 2008, Ford’s ownership stake dropped to 13.8 percent, and in 2009, Mazda issued new shares which dropped Ford’s ownership stake again to 11 percent. Ford’s stake was further reduced to 3.5 percent toward the end of 2010 when Ford decided to cut its stake in Mazda again. Despite this change, Mazda and Ford both agreed that their partnership will continue and the companies will continue to collaborate on joint ventures and projects.

Mazda introduced the new 2011 Mazda2 at the 2010 Canadian Auto Show. Both Mazda2 and the Ford Fiesta are built on the same platform, but with different engines, lengths, and sheet metal. Despite Mazda's "zoom-zoom" marketing, the Mazda2 has a smaller engine and is less powerful than the Ford model. The Mazda2 has been highly acclaimed, winning 48 automotive awards, including "Car of the Year" in many markets worldwide. The Mazda2 was also selected as the "2008 World Car of the Year" at the 2008 New York International Auto Show. Global sales have reached over 400,000 units in the three years since its introduction.

Mitsubishi

Currently, Mitsubishi is manufacturing both passenger cars and light trucks, albeit in reduced quantities. In 2009, total U.S. sales across all vehicle lines declined 44.8 percent from 2008 to 53,986. In 2010, Mitsubishi saw a slight increase in sales of 3.1 percent to 55,683. Mitsubishi is the 6th best selling Japanese company in the United States. The company also maintained its 0.5 percent U.S. market share. Its single U.S. plant is based in Normal, Illinois. While this facility has a production capacity of 135,000 according to its website, less than 20,000 vehicles were manufactured there in 2009.

Mitsubishi missed a contractual deadline with the United Auto Workers (UAW) in 2010 to allocate a new vehicle to be manufactured at the Normal plant. This failure to meet a deadline resulted in a base wage increase for UAW employees at the plant. However, in December 2010, the UAW and Mitsubishi reached an agreement for a new product to be built at the plant, according to Automotive News. Details of the agreement, including which new vehicle will be produced at the plant, were not immediately available. Automotive News has reported that Mitsubishi will build vehicles based on the Lancer and Outlander at the Normal facility in the next two years, which are currently built in Japan. This could lead to the elimination of other models currently built there, such as the Spyder and Eclipse.

Mitsubishi's all-electric i-MiEV (Mitsubishi innovative Electric Vehicle) was awarded the "Environmental Special Grand Prize" at the 25th International Festival held in Paris in 2010. The vehicle went on sale in Japan in the summer of 2009 and a North American version is expected to arrive to market in the fall of 2011. According to Wards, Mitsubishi is aiming to launch the i-MiEV in the United States with a sticker price under \$30,000 before federal tax credits. The vehicle will have seating for four and an expected range of 85 miles.

Mitsubishi and Nissan announced a partnership in late 2010 to develop and sell mini-car models, initially in Japan. Under the agreement, Nissan will also produce a small van to be sold under the Mitsubishi name, while Mitsubishi will produce an SUV to be sold under the Nissan name. The companies expect the partnership to expand in the future, including the possibility of working on an electric car.

Nissan

Nissan is the sixth bestselling brand in the United States, behind the Detroit 3, Toyota, and Honda. In 2009, Nissan had a decline in U.S. sales of 18.8 percent from 2008 to a total of 772,324 units. After the third straight year of declining sales for Nissan in the U.S. market, the

company's sales in 2010 improved nearly 18 percent to over 900,000 units sold. Nissan's market share improved to 7.9 percent, the largest share of the U.S. market ever for Nissan. Through the first half of the 2010 fiscal year ending in September 2010, Nissan reported its net income after taxes was \$2.34 billion, net revenues were \$45.58 billion, and operating profit was \$3.77 billion, with a 7.8 percent profit margin. During this same period of time, Nissan reports that it sold over 2 million vehicles worldwide, a 23.8 percent increase from the same period the year before.

Nissan has three production plants in the United States: Smyrna, Tennessee; Decherd, Tennessee; and Canton, Mississippi. The Smyrna plant, according to the company website, has an annual production capacity of 550,000 vehicles and produces the Altima, Maxima, Xterra, Frontier and Pathfinder. The Nissan LEAF is expected to begin production at the Smyrna plant beginning in 2012. The Decherd plant manufactures all the engines for the complete lineup of Nissan vehicles produced in the United States. Nissan recently underwent a two-year \$118 million expansion of its plant in Canton. This expansion allowed Nissan to launch production of the all-new 2012 Nissan NV commercial van and provides Nissan an entry into the commercial vehicle market in the United States. The Canton plant also produces the Altima, Titan, and Armada SUV.

Nissan is engaging in a number of approaches and activities in order to achieve its goal of being an environmentally responsible manufacturer. As part of Nissan's zero-emission approach, it released the Nissan LEAF in 2010. In December, Nissan delivered the first LEAF to a resident in San Francisco. This was followed by deliveries to other launch markets for the LEAF in Southern California, Arizona, Oregon, Seattle and Tennessee. Nissan aims for a nationwide launch of the LEAF by 2012. Nissan hopes to sell 150,000 LEAF vehicles in North America by 2012.

The LEAF is a five-passenger all-electric car. Nissan states that the car will have no emission of CO₂ or other greenhouse gases while having a driving range of more than 100 miles on one full charge. In late 2010, the Environmental Protection Agency (EPA) provided the LEAF with its first fuel economy label, which gives the LEAF a 99 miles-per-gallon equivalent in combined city/highway driving. In addition, they state that the vehicle is capable of being 80 percent charged in less than half an hour. The LEAF was included in the 10 Best Engines by Ward's Auto World and was named the 2011 European Car of the Year.

Nissan has received funding from the Department of Energy (DOE) to retool their plants to manufacture electric cars and batteries. The loan program was approved by Congress in September 2008 to help manufacturers upgrade facilities to comply with new fuel standards. In early 2010, the DOE came to terms on a \$1.4 billion loan agreement with Nissan North America, Inc. The company intends to use the money to upgrade its facility in Smyrna, TN in order to produce the LEAF and lithium-ion battery packs. In May 2010, Nissan broke ground on the LEAF production site in Smyrna and upon completion is expected to produce 200,000 advanced-technology batteries annually. DOE states that these projects will create up to 1,300 American jobs while also conserving up to 65 million gallons of gasoline per year.

Nissan is also taking a very active role through partnerships with cities, states, and various countries in promoting electric vehicle technologies. Nissan has formed these partnerships to help prepare markets for the introduction of electric vehicles, including the installation of charging stations. Nissan already has agreements in place with Connecticut; Massachusetts; Tennessee; Washington, DC; Orlando, FL; Toronto, Canada; Hawaii; Houston, TX; among others.

As one example, Nissan has announced an electric vehicle program with the Pima Association of Governments (PAG), which includes the Tucson, AZ region. Nissan and PAG will work with ECOtality, a clean electric transportation company, to deploy electric vehicles and a charging infrastructure throughout the region. ECOtality, which was awarded a \$100+ million grant from the Department of Energy, will be deploying approximately 15,000 charging stations in 16 cities across six states to help grow the infrastructure and public charging network.

Subaru

In 2009, Subaru sold about 215,000 vehicles in the United States, and was one of two other brands (Kia and Hyundai) that managed sales increases over 2008. Subaru continued to increase its market share to about 2.3 percent in 2010 and has nearly doubled its share over the last three years. Overall, Subaru had a 21 percent increase in sales of over 260,000 units from 2009, which is one of the largest increases of major nameplates in the U.S. market. This marks back-to-back years that Subaru had a double digit sales increase and back-to-back record sales years. Over half of Subaru's sales come from vehicles manufactured at its Indiana facility. According to Ward's, Subaru's North American production was up almost 44 percent in 2010 to 245,751 units.

According to Automotive News, part of Subaru's success can be attributed to its strategy of keeping prices low and focusing on its reputation as a value brand, outdoor-oriented and pragmatic. According to EPA, Subaru also has the most fuel efficient line-up of all-wheel-drive products sold in the market today. All of Subaru products are manufactured in zero-landfill production plants, and, according to Subaru, Subaru of Indiana Automotive Inc. is the only U.S. auto production plant to be designated a backyard wildlife habitat by the National Wildlife Federation.

The Insurance Institute for Highway Safety (IIHS) recognized Subaru with a 2011 TOP SAFETY PICK winner in every vehicle class it competes. Kelly Blue Books announced that Subaru would be awarded the 2011 Best Retail Brand. In addition, the 2010 Outback was named "Top 10 Family Car" by Kelley Blue Books. Subaru won Automotive Lease Guide's "best mainstream brand" award for the 2010 model year. According to J.D. Power and Associates' 2010 customer-retention study, Subaru's brand loyalty was 57 percent. This is just behind Ford and Honda, who were tied for number one with 62 percent retention.

One of the issues Subaru will confront within the next several years is the introduction of hybrid vehicles. While Subaru of America's chief operating officer, Tom Doll, has stated that they are happy with the current product lineup, he also admits that hybrids could help promote the

brand's image. It has been reported for several years that Subaru is planning to launch a hybrid car, with a potential debut in the United States in 2012.

Toyota

For Toyota, 2010 was one of the most challenging years in its entire U.S. history. Toyota was ordered to pay two fines, totaling \$48.8 million, following investigations of failing to comply with proper timing of notifications of its vehicle defects to regulators. This was the largest sum paid by any automaker, and brought the total number of recalls thus far to 12 million vehicles. While the monetary amount may not have impacted Toyota's bottom line greatly, the impact to the company's prestige and reputation with consumers was immense. In fact, Toyota had to stop production and sales of its two biggest selling models, Camry and Corolla, last January to focus on 12 million recalls. As industry wide auto demand grew by 11 percent in 2010, Toyota's sales dropped 0.4 percent. Plus, Toyota lost about seven percentage points of the 10 percent fall in U.S. revenues between the first and second quarters because of the strengthening of the yen, according to the Financial Times. In 2010, Ford surpassed Toyota as the United States' second largest car maker for the first time since 2006. Because of the fall in sales and the loss of revenue, Toyota was forced to boost its average discounts and other incentives by almost a third last year, compared with Ford, whose incentives shrank by over five percent. Despite these discounts, Toyota's market share slipped to 15.3 percent for 2010 from 17 percent a year earlier, according to Ward's Automotive. According to many analysts, one of the intangible downsides for Toyota is the damage to its reputation as a "quality" product and the loss of some once-true customers. Toyota will have to work diligently to restore its tarnished image.

On a positive note, Toyota has a healthy balance sheet with strong liquid reserves, and a leading position in most key markets around the world. Although Toyota lags behind GM and Volkswagen in the world's biggest market, China, the company expects its global sales volume to rise by three percent in 2011 to 8.61 million vehicles. Plus, a close examination of 2010 does reveal several accomplishments for Toyota. Toyota continues to be number one in U.S. retail brand status for 2010 with its Camry. Surprisingly, Toyota's brand perception continues to do well despite the recalls. In Consumer Reports' 2011 Car Brand Perception Survey, Ford and Toyota are locked in a dead heat, primarily because of Toyota's green credentials. In the category of how environmentally friendly and green the companies are, Toyota scored 46 to Ford's 18. However, looking at the entire picture, the survey revealed that Toyota had fallen by 46 points and Ford had actually climbed by 35 points.

Overall, worldwide passenger car sales for Toyota dropped in 2010 but the demand for light trucks increased. According to Wards Auto, the only Toyota cars with an increase in sales were the Avalon sedan (up 5.4 percent) and the Prius hybrid hatchback (up .9 percent). Toyota's biggest seller in the truck category was the RAV4 cross/utility vehicle, which sold 170,877 units, an increase of 14.6 percent from 2009. The Sienna minivan increased 17 percent, and the Tundra full size pickup truck increased in sales by 17.5 percent from 2009. Lexus was the leader in the luxury category for the 11th straight year with an increase of 6.9 percent against its closest rival BMW AG. However, most of the Lexus sedans, like its Toyota cousins, took a backseat to light trucks. Aside from the Prius hybrid, the other hybrid sales were flat with the ES hybrid at a 0.3 percent gain and the IS hybrid at a 10.4 percent loss.

Toyota's plans for 2011 are to keep moving forward with new technology and more eye-catching features. The key to Toyota's success will be whether it stays ahead of its competitors with the technology that consumers want and with cheaper prices. To that end, the company debuted a host of new products at the North American Auto Show in Detroit in January. These included the Lexus CT 200h, the Scion IQ and the expansion of the Prius lineup. The Lexus CT 200h is the first premium compact hybrid in the luxury segment. It is expected to be a luxury leader in fuel economy with 42 mpg. The Scion IQ is a micro-subcompact geared towards young urbanites. The Scion emphasizes sleek geometric designs with several engineering innovations like a compact air-conditioning unit, inverted front-mounted differential, and a flat gas tank housed beneath the floor that reduces rear overhang.

The key feature at the Detroit Auto Show for Toyota was the unveiling of the new Prius v. The Prius v will be a first in a new family of models that will carry the Prius name. According to the Wall Street Journal, this prototype is expected to have 50 percent more cargo space than the current Prius, and a slightly higher roofline, similar to the Matrix wagon. Likewise, a smaller Prius car called the Prius c will be introduced in 2012, and will be similar to the Yaris subcompact. Also to hit the streets in 2012 is a plug-in Prius, which will have a gasoline engine and a battery, which can be recharged from a power outlet. According to Jim Lentz, President of Toyota Motor Sales, the Prius nameplate will be the best selling in Toyota's portfolio, surpassing the Camry, by 2020. Business Monitor International (BMI) has forecasted a projected growth of 55 percent for smaller or alternative-fueled passenger cars in 2011. This may be a realistic figure given the prediction by some that gasoline prices could soar past \$4.00 by this summer, and go even higher in the future. However, Toyota's Prius will have to compete with General Motor's Volt and Nissan's Leaf, which have generated a lot of buzz with their recently released electric-powered vehicles. In addition, Ford is expected to introduce an all-electric version of the Ford Focus later this year.

While Toyota remains committed to hybrids, it is hedging its bets on electric technology. In late 2009, it developed and started leasing a small number of plug-in hybrids, which are expected to go on sale next year. These have a range of about 13 miles before the gasoline engine kicks in. In addition, Toyota has invested \$50 million in electric auto company Tesla Motors, and has provided Tesla with \$60 million to develop the RAV4 SUV, a fully electric vehicle which runs on batteries. In fact, the former NUMMI plant in Fremont, California, which was officially closed on March 31, 2010, is being transformed into a green technology center and will be the base for Toyota and Tesla's collaborations. By 2012, the RAV4 will be sold in 13 U.S. states that have adopted California's ZEV mandate (for zero emission vehicles). This partnership is expected to provide 1,000 jobs to the Fremont area. Tesla and Toyota are also reportedly developing technologies that will eliminate the need for rare earth materials in the batteries. Toyota is also developing its own small electric vehicle for sale in 2012 to serve niche markets of drivers with very short commutes. In 2015, Toyota is on schedule to sell hydrogen cars in California, Japan and Germany, as an alternative to battery-powered models. It is trying to overcome the costs and technical hurdles of hydrogen fuel cells, in order to make it more mainstream. The cruising distance of fuel-cell cars is comparable to conventional gasoline-engine cars. According to Takeshi Uchiyamada, Toyota's executive vice president for research and product development, Toyota is reducing costs for fuel cell models from improvements in

making high-pressure hydrogen tanks and fuel-cell stacks. Over the years, Toyota expects consumers to choose the technology which best suits their needs.

Overall, it is expected that Toyota will bounce back over the next couple of years. Since the massive recalls, Toyota has decided to increase production in the United States, focusing on setting new standards for safety, quality and transparency. In addition to the infusion of funds to Tesla and the NUMMI plant, Toyota is also investing heavily in its San Antonio, Texas and Blue Springs, Mississippi plant. In August 2010, Toyota injected an additional \$100 million in its San Antonio truck plant with production of the Tacoma midsize pickup and the full-size Tundra truck. Toyota expects to boost employment by 1,000 to 2,800 people, and invest a total of nearly \$1.4 billion to the plant. At the end of December 2010, Toyota announced that it will restart production at its Blue Springs plant by the end of 2011 with the manufacture of its compact Corolla car. The company has already begun recruitment of nearly 2,000 employees for the facility and started training the first recruits in January 2011.

Toyota is running U.S. television and internet commercials trying to reassure its customers that it is committed to safety and quality. Last October, Toyota began a “Toyota Care” program for U.S. buyers, making two years of free maintenance and roadside assistance standard on new models. According to Edwin Merner, president of Tokyo-based Atlantis Investment Research Corp, the company’s efforts will yield results over time. In 2000, Bridgestone’s value plunged 54 percent after it recalled 6.5 million tires, and then it bounced back with revenue growth for the next seven years straight. Toyota is expected to do the same. However, it may take a couple of years for Toyota to fully regain customer trust.

U.S. Light Vehicle Sales

U.S. light vehicle sales rebounded in 2010 to 11.5 million (or an 11 percent increase over 2009, when U.S. light vehicle sales fell to their lowest level since 1982). Sales peaked in the year 2000 at 17.3 million units, and averaged 16.4 million units from 2000 to 2008. Sales in 2009 were 10.4 million, or 21 percent below 2008’s sales level, which in turn were 18 percent below 2007’s levels. These extremely low sales levels caused major distress for nearly all the automakers operating in the United States and directly contributed to the near downfall of the Detroit 3.

The poor sales in 2009 could have been even lower if not for U.S. Government assistance. In late July, the Department of Transportation began accepting applications under the U.S. Consumer Assistance to Recycle and Save (CARs) Act of 2009 (or the “Cash for Clunkers” program), which provided cash for the trade-in of low fuel economy vehicles for models with higher fuel efficiency. Congress originally appropriated \$1 billion for the program, but noting the intense demand in the first week, immediately bumped funding to \$3 billion. Ultimately, DOT issued 677,842 vouchers for vehicle sales under CARs, with an average fuel economy improvement of 9.2 miles per gallon. This boost to sales came at a critical time in the year, when the seasonally adjusted sales rate was hovering around nine million units. For more details on the outcome of the cash for clunkers program, see the Department of Transportation’s final report to Congress on CARs at:

<http://www.cars.gov/files/official-information/CARS-Report-to-Congress.pdf>

Detroit 3 Performance

The Detroit 3's positive sales figures in 2010 reflect a good year overall for the U.S. auto industry. Collectively they sold nearly 5.2 million units with a market share of 45 percent. This was a 13.5 percent increase over 2009. All three companies' unit sales increased during 2010, with GM ending the year at 19.2 percent market share, Ford at 16.5 percent and Chrysler at 9.4 percent (GM's overall market share dropped slightly from 2009's 19.9 percent). Ford's market position shows the greatest improvement over 2009 with a 19.5 percent increase in unit sales. Even Chrysler showed substantial gains from the previous year's 8.9 percent market share, up 17.3 percent in unit sales.

While Detroit 3 sales, increased from 4.6 million vehicles to over 5.2 million vehicles in 2010, these sales levels match more closely to sales levels in the 1950's (in 1958 when the U.S. population was only 57 percent as large as it is today, U.S. car makers sold 4.7 million passenger cars). Following the trend of the past five years only, the Japanese car companies would have passed the Detroit 3 in 2010. However, following these simple trend lines ignores the downsizing of GM and Chrysler, the market share gains of Ford and the quality problems Toyota began to encounter throughout 2010. While it is hard to predict with any certainty what any particular year's market share numbers will be, it seems likely that the Detroit 3 will continue to improve their market position until, at least, Toyota recovers.

Foreign Manufacturers

Although unit sales increased, Japanese manufacturers' market share decreased to 38.8 percent of the market, versus 40.5 percent of 2009's market. This ended the trend of increasing share that had been unbroken since 1996. Moreover, like most auto companies, Japanese manufacturers suffered during 2009 with sales down 19.6 percent (but not as badly as the Detroit 3). In 2010, all of the Japanese manufacturers, with the exception of Isuzu and Suzuki (which reported heavy losses), experienced sales increases during the year. Subaru experienced the best growth at 21.8 percent. Many analysts see Toyota's quality problems leading directly to a market share loss in 2010. However, Toyota's market share only decreased by 1.7 percent. This decline put Ford back into the number two slot for U.S. sales - ahead of Toyota for the first time since Toyota pulled ahead of Ford in 2007.

As a group, the German manufacturers outperformed the American and Japanese nameplates, increasing their market share from 7.3 percent to 7.6 percent, for a total of 871,841 units (14.3 percent higher than 2009's 762,616 units). Volkswagen and Porsche performed the best, with sales up 21 percent and 28.6 percent, respectively.

The Korean manufacturers (Hyundai and its subsidiary Kia) continued to have the most impressive performance of any group in 2010. Their sales were up 21.7 percent, to 894,496 units, though their market share grew only slightly from 7.1 percent to 7.7 percent. These manufacturers have enjoyed a rapid rise in the U.S. market. Fifteen years ago their market share was 0.2 percent. Ten years ago, in 1999, they had climbed to 1.4 percent, and five years ago they were up to 3.1 percent. Nonetheless, with the opening of the Volkswagen plant in

Chattanooga this year, German sales are expected to increase even more, and competition with the Koreans will be amplified.

Cars vs. Trucks

Through the 1980's, the 1990's and the first half of the 2000's light trucks increasingly dominated American consumers' buying habits with ever-rising market share. By 2001 they commanded over half the market. This trend finally reversed in 2005, as passenger cars began to reclaim their popularity. In 2008 and again in 2009, passenger cars accounted for more than half of all vehicle purchases, with the share in 2009 reaching 52 percent. The change was in large part spurred by high gas prices in 2008, and many analysts thought this shift back to passenger cars was the start of a long-term trend. However, during 2010, the share of car sales decreased by 6.1 percentage points to 48.8 percent of the total market, and trucks reclaimed 51.2 percent of the market.

Foreign manufacturers have traditionally relied on passenger cars for the bulk of their sales, and more recently added light trucks to their line-ups. The Detroit 3 came to rely more and more heavily on truck sales for profits in the 1990's. However, even these companies have announced a new emphasis on renewing their flagging passenger car offerings. GM and Ford have had success with models like the Malibu and the Fusion. Chrysler's new partner, Fiat intends to bring its expertise in small car manufacturing to the United States to help revive the company. However, this new emphasis on the part of the Detroit 3 has yet to play out in the market place statistics. For example, the Detroit 3 accounted for only 31.7 percent of passenger car sales in 2010, up slightly from 2009's 31.3 percent in 2009. As recently as the year 2000 they accounted for over half that market, with a share of 52.8 percent.

Truck Market

Within the light truck market, the category that remained the big winner in 2010 was cross utility vehicles. Continuing its long-term climb, the segment jumped from 37.6 percent of truck sales to 46.7 percent from 2008 to 2009. During 2010, unit sales increased, but market share dropped slightly to 46.2 percent of the light truck market. Most of these customers likely came from previous SUV owners looking to find a smaller and more fuel efficient vehicle. SUVs once commanded 39.4 percent of truck sales (in 1999) but have seen their popularity wane over the years. As a major profit center for the Detroit 3, the decline of this segment contributed to the financial jeopardy that engulfed the Detroit 3 in 2009. Pickup truck sales were up 15.5 percent during 2010, but still lost slightly in terms of market share, decreasing from 27.8 to 27.2 percent of the market. Pickups were at 31.1 percent in 2008. Nonetheless, even with market pressure for smaller and/or more fuel efficient vehicles, there are many uses for which there is no substitute for a pickup truck. Sport utility vehicle sales grew by 30 percent from last year to represent 15.4 percent of the light truck market, up from 13.9 percent in 2009. Van sales peaked in 1992 at 29 percent of truck sales and have lost share every year but one since then. In 2010, van sales accounted for 11.3 percent of the light truck market, down slightly from 11.6 percent in 2009.

Sales Summary

As automakers push to meet new federal fuel economy standards and the Department of Energy provided improved loans for fuel efficient cars, many analysts predict that the shift from trucks

to cars, and from big trucks to small trucks (e.g. CUVs) will accelerate. While recent history would indicate that this would favor foreign manufacturers, recent passenger car advances from the Detroit 3, and the promise of Fiat product coming to the U.S. market for Chrysler will make the U.S. companies stronger contenders.

U.S. Light Production and Capacity Utilization

Light Vehicle Production

IHS Global Insight's Automotive Group forecasts that U.S. light vehicle production is expected to grow to nearly 8.1 million units in 2011, and break 10 million units by 2014 (the first time in a decade), based on changing product mix, including a host of new fuel efficient hybrids and electric vehicles. Indeed, based on Ward's data, 2010 brought light vehicle production rebounds of 36 percent, reaching nearly 7.6 million units, compared to 5.6 million units in 2009 — the lowest production level in decades. Specifically, passenger car production accounted for 36 percent of production at 2.7 million units, and light trucks made up the remaining 64 percent, at nearly 4.9 million units. In terms of percentage gains year-on-year in each category, cars were up 24.4 percent and light trucks were up 43.6 percent.

During 2009, the Detroit 3 suffered huge declines overall, and collectively produced less than three million light vehicles. However, 2010 brought growth, with an overall increase of 40 percent, to just over 4 million light vehicles, and a regaining of two percentage points in production share to nearly 55 percent.

Chrysler's performance is particularly noteworthy. After suffering a 4.5 percentage loss in market share production during 2009, Chrysler regained 2.4 points in 2010, climbing back into the double digits at 11 percent. Chrysler's major gains were in passenger car production, up over 100 percent to 169,398 units. Nonetheless, its light trucks were also up nearly 69 percent and still account for Chrysler's bulk of production at 669,099 units.

Although Ford increased its overall production during 2010 in both cars and light trucks, it lost 2.3 percentage points in its share of production. This, however, is simply a reflection of how badly other manufacturers were affected in 2009, and how Ford was able to stay on course, regardless of the financial crises and changing market. Ford increased its 2010 car production by 26.2 percent to 298,639 units and its light truck production by 21.8 percent to 1,284,696 units. Ford remains the U.S. leader in light truck production.

GM's 2010 production rebound is also significant, as GM has been evolving and undertaking corporate changes over the past year. While GM's U.S. production fell by almost half from 2008-09 (47.8 percent) and its share of U.S. production also fell below Ford (to only 21.2 percent, down from 26.8 percent), producing less than 1.2 million vehicles in the United States in 2009. GM's 2010 performance has it back in the lead over Ford. GM increased its 2010 car production by 45.2 percent to 600,703 units and its light truck production by 45.9 percent to over 1 million units. GM remains the U.S. leader in passenger car production.

Following closely behind the Detroit 3 were the Japanese manufacturers (Honda, Mazda, Mitsubishi, Nissan, Subaru, and Toyota) with an overall light production share of 35.8 percent.

Although they cumulatively lost 3.7 percentage points of the production share, their units actually increased by 23.5 percent to just over 2.7 million units, up from 2.2 million units in 2009. All Japanese manufacturers experienced overall gains in their U.S. light vehicle production during 2010; some more than others. For example, the smaller manufacturers made significant gains. Mitsubishi experienced a 58.8 percent change in its light vehicle production during 2010, with car production growing by 55 percent to 22,969 units and light truck production growing 73 percent to 6,406 units. Subaru also continued its climb by increasing its passenger car production and doubling its light vehicle production; an overall gain of 43.3 percent, from a total of 170,879 units in 2009 to 245,751 units in 2010. Mazda also had a positive increase of 20.3 percent to 122,754 in its exclusive automobile production.

The Japanese Big 3, Nissan, Honda and Toyota also fared well. Honda overtook Toyota for the first time in terms of total U.S. production during 2010, with a total of 951,035 units and a 12.5 production share, versus Toyota's 856,597 units and 11.3 market share. Moreover, Toyota was the only manufacturer of these three to experience a decline in its U.S. passenger car production, by 21.1 percent. Toyota nonetheless experienced the strongest gains in light truck production of these companies, by 43.1 percent, for a total of 482,875 units. Toyota lost 3.2 percentage points of total production, falling from 14.5 percent in 2009 to 11.3 in 2010 (This is mainly due to the fact that Toyota had to stop production and sales of its two biggest selling models, Camry and Corolla, last January to focus on 12 million recalls). Honda's production share also fell from 13 percent in 2009 to 12.5 percent in 2010, even though the number of units produced increased by 31.5 percent. Nissan experienced the strongest gains overall in both cars and trucks, holding a steady 6.7 percent of total light vehicle production. Specifically, Nissan's car production increased 33.9 percent, and its light truck production increased 42.4 percent, for a total of 510,869 units.

Korean manufacturers Hyundai and Kia also made huge strides, given the opening of the Kia plant in Georgia in late 2009. These manufacturers collectively gained 2.2 percentage points in their total U.S. production share, reaching six percent in 2010. While Hyundai focused on passenger cars with some light truck production, Kia focused on light trucks only. Hyundai's car production more than doubled over last year, with a 129.5 percentage growth to 238,387 units while its light trucks declined 32.3 percent to 62,113 units (largely due to Hyundai's shifting of production of the Santa Fe CUV to the Kia plant to focus its Alabama plant on passenger car production). However, Kia's light truck production took off and grew 883 percent to 152,361 units. Clearly, the Korean manufacturers have plans for growth in this market.

European manufacturers BMW and Mercedes accounted for 3.7 percent of U.S. light vehicle production in 2010, down slightly from 3.8 percent in 2009. However, with the completion of the Volkswagen plant in Tennessee, and the commencement of production during 2011, European growth is also expected to be significant over the coming year. Moreover, while BMW and Mercedes focus on light truck production, Volkswagen will be initially producing passenger cars. Therefore, overall European production will be more diversified, including production of clean diesel technology vehicles. BMW's light vehicle production was up 26.3 percent to 153,646 units over 2009, and Mercedes' production was up 37.1 percent to 124,233

units. It is clear that the Europeans are also serious about growth in the United States with their continued investments and product line-ups.

While a number of plants closed between 2009 and 2010, it is important to note that some products remain very popular, and this could lead to plants reopening in 2011. Nonetheless, as sales levels continue to improve, automakers will be faced with the decision of whether to increase capacity once again and face the dilemma of potentially flooding the market.

Capacity utilization

In December 2010, Ward's reported that since 2005, 25 automotive assembly plants have closed in North America, and capacity has decreased by 4.5 million vehicles. Nonetheless, plant closings and consolidations have led to better capacity utilization, smaller inventories and greater profits. Data from the Federal Reserve Board (FRB) shows that the average yearly capacity utilization for automobiles and light duty motor vehicles from 1972-2010 was 76 percent. Over the last fifteen years, utilization rates in the United State frequently exceeded 80 percent and were occasionally closer to 90 percent. The highest capacity utilization rate was in 1978 (91.1 percent).

In 2009, capacity utilization reached only 43.7 percent, the lowest rate since 1972 (the earliest data publically available). This was primarily because of bloated inventories and temporary shutdowns at GM and Chrysler. Prior to 2005, capacity utilization had reached at least 80 percent every year since 1994, but it has failed to reach that level since. Capacity utilization dropped over 17 percent in 2008 from the previous year, while it dropped again in 2009 over 31 percent from the low levels of 2008. As noted earlier, temporary GM and Chrysler plant closures during the year were major contributors to the decline in utilization.

These mathematical averages hide large differences among individual companies and demonstrate how the capacity rates can fluctuate dramatically from one year to the next given market conditions and the impact of plant closures. For example, in January 2009, GM had a capacity utilization rate of 30.8 percent. By December of that year, capacity for GM was 52.5 percent, and in January 2010, GM capacity was 62.4 percent. Over the course of 2009, GM had to shutter a number of plants as it dealt with bankruptcy to decrease capacity and emerge with a more efficient process. Both Ford and Chrysler had similar capacity trends and plant closures over the last year to various degrees.

During 2011, many new and reconfigured plants will begin production, which will help offset those closing. According to Ward's, Ford could build as many as 250,000 Focus compact cars at its retooled Michigan Wayne plant. GM and Volkswagen will begin production in the second half of 2011 with the Chevy Aveo in Orion, Michigan and the Passat in Chattanooga, Tennessee, respectively (an estimated 100,000 units). Toyota also expects to begin production at its Blue Springs, Mississippi plant in the 4th quarter (approximately 30,000 units).

Therefore, as the consolidated industry evolves, it is clear that traditional benchmarks for industry health are also evolving. Not only will sales and production measure the industry's recovery and health, but capacity utilization, coupled with inventories and reduced incentives per

vehicle sale, will measure the true health of the changed industry. By keeping these dynamics in better balance, the industry will be better able to respond to the changing demands of its consumers on a quicker, more efficient basis.

While the United States is on its way to accomplishing these changes in restoring a better balance between supply and demand, placed into the broader context of global vehicle capacity, it is clear that overcapacity issues loom and will, in turn, have an effect on the overall recovery of the U.S. market. Worldwide overcapacity is a huge concern since excess supply leads to reduced prices and profits across-the-board for all manufacturers. According to a recent Congressional Research Service Report “The U.S. Motor Vehicle Industry: Confronting a New Dynamic in the Global Economy” (March 26, 2010), such overcapacity exists in Europe and developing markets such as China and India, and it is likely that global demand will not match global production in the near-term. Consequently, keeping an eye on this overcapacity dilemma will be a huge concern as automakers attempt to streamline and balance their respective product offerings to be accurately in-line with anticipated consumer demand.

Employment

Employment has significantly declined in the automotive sector over the last decade. The continued restructuring of the Detroit 3 over the past several years has been a major contributing factor. As the Detroit 3's share of the U.S market has declined, the companies have been forced to close many plants throughout the United States. U.S. motor vehicle manufacturing employment declined from a peak of about 300,000 workers in 2000 to approximately 151,000 workers in 2010. However, even though U.S. light vehicle production increased by 36 percent, estimates from the Bureau of Labor Statistics (BLS) indicated employment for motor vehicle manufacturing remained about the same for 2010, compared to 2009.

If the automotive parts companies (motor vehicle bodies, trailers, and parts) are included in the automotive data, the industry employed approximately 674,000 production workers in 2010, up from 664,000 for 2009. However, 1.3 million, the highest level in history, were employed in June 2000.

The employment numbers of each individual company have changed drastically in recent years. The number of Detroit 3 workers has been declining rapidly, making accurate counting difficult. While it is difficult to get accurate numbers at any specific moment, snapshots of changes in the workforce are available. As of the end of 2010, Ford had approximately 43,000 hourly employees, GM 53,000, Chrysler an estimated 25,000 in the United States. Periodically, Ford, GM, or Chrysler will publish North American data, or production workers in the United States, or some other variation, but consolidated data for both salaried and hourly by company only in the United States for the Detroit 3 and the transplants is difficult to locate.

In addition, the vehicle industry supports a wide variety of “down-stream” employment in dealerships, service/repair, financing, etc. Dealers employed a high of 1.15 million employees in 2002-2005, but the average number of employees has been declining since then. The National Automobile Dealers Association (NADA) reports in its 2010 State of the Industry Report that

the number of employees in 2010 had fallen to about 900,000. Much of this decline can be attributed to the discontinuation of many Detroit 3 brands (Saturn, Pontiac, Mercury, etc.) and the elimination of dealerships during the restructuring of GM and Chrysler in 2008-2010.

Despite these reductions in employment, the automotive industry continues to be one of the largest employers in the United States. At approximately four percent of the nation's total GDP, the automotive industry has an impact on many indirect jobs of the U.S. industrial base. For example, the Center for Automotive Research (CAR) estimated in 2008 that if the Detroit 3 were to go out of business, the total job loss in the United States would be approximately 3 million. Given the interconnection among the three companies' supply chains and the weakened state of most U.S. auto parts companies, the loss of one of the Detroit 3 would have likely crippled production at the other two and probably the transplant auto companies as well.

The addition of new plants, such as Kia in Georgia, Toyota in Mississippi, and Volkswagen in Tennessee, will boost employment opportunities in those communities. In addition, GM is already discussing the possibility of reopening some shuttered plants to meet the demands for popular vehicles. Ford announced in late 2010 that it will convert some light truck plants to small car assembly plants. Ford also announced in January 2010, that it would hire an additional 7,000 workers over the 2010-2011 timeframe.

Nonetheless, the overall reduction in employment is not expected to be entirely replaced by new or expanded U.S. investments by international and U.S. automakers, and certainly will not be replaced in the same communities. Moreover, affected suppliers and dealerships will face further consolidation, resulting in even more employment declines. According to forecasts from BLS, improvements in productivity and foreign outsourcing of parts production will lead to further declines in employment in the industry over the next decade, with a decline in motor vehicle and parts manufacturing of over 16 percent.

BLS also predicts that wages in the industry will continue to decline. The UAW made concessions in their 2007 contracts, and as part of the bankruptcy proceedings by Chrysler and GM, further concessions were made to ensure the viability of the competitiveness of the companies' futures. Many new auto workers will begin their new jobs with average hourly earnings about one half of what current workers earn.

The UAW announced in January 2011, that it intends to try again to organize the Japanese, German, and Korean transplants. In addition, the current UAW contracts with the Detroit 3 expire this year and the president of the UAW has stated he believes the UAW should regain some of the givebacks from the previous two/three years due to the profitability of Ford and GM.

Market Forecasts and the Road Ahead

U.S. Light Vehicle Market Forecast for 2011 and Beyond

After what was arguably the most challenging year on record for the auto industry in 2009, automakers experienced some recovery in 2010. U.S. sales rose 11 percent to reach 11.5 million

units. Industry experts are forecasting a continued recovery in 2011, with many predicting a market of approximately 13 million units for the year. Witnessing the strong sales near the end of 2010, analysts at Ford and General Motors raised their forecasts for 2011 to reach between 13 and 13.5 million units.

As might be expected after the challenges of 2010, economic indicators for the coming year are mixed. The Federal Reserve is predicting continued economic recovery in 2011, likely at a pace slightly improved from 2010.

Disposable personal income (DPI) was up marginally from the end 2009 to 2010 – up 3.1 percent to \$11.4 trillion.¹ On a per-capita basis, DPI was up 2.2 percent in current dollars, and 0.5 percent in chained 2005 dollars over the same period. Housing starts, which are generally considered a good indicator for pickup truck sales, were up 16.7 percent in December 2010 over November starts. However, they were still 6.8 percent below December 2009 levels.²

The new light vehicle sales forecast of 12.9 million units from the National Auto Dealer Association, lists several key factors indicating boosted auto sales in 2011.³ Among the factors listed are increased choices for new car and truck buyers (e.g. availability of high number of new models) and improving credit availability at low interest rates. According to the Federal Reserve, interest rates for new car loans at auto finance companies were at 4.52 percent in October of 2010. While up from the lowest rates offered in 2009 (averaging 3.82 percent), this was still a full point below the 2008 average of 5.52 percent.⁴ Also, personal consumption expenditures for new passenger vehicles reached \$177 billion in 2010. This was well below the \$185 billion in 2008, before the economic crisis hit in full in 2009 and spending fell to only \$165 billion.⁵ The increase from 2009 may indicate a return to more typical spending levels as pent up demand is addressed.

¹ Current Bureau of Economic Analysis data, available from: <http://www.bea.gov/national/nipaweb/SelectTable.asp?Selected=Y>. Scroll to Section 2 and select Table 2.1 for “Personal Income.”

² U.S. Census Bureau’s New Residential Construction Press Releases available from: <http://www.census.gov/const/www/newresconsthist.html>

³ National Auto Dealer Association: <http://www.nada.org/MediaCenter/News+Releases/NADA+Lists+Top+5+Factors+That+Will+Boost+Auto+Sales+in+2011.htm>

⁴ Federal Reserve Board’s monthly consumer credit report, available from: <http://www.federalreserve.gov/releases/g19/Current/>

⁵ Current Bureau of Economic Analysis data, available from: <http://www.bea.gov/national/nipaweb/SelectTable.asp?Selected=Y>. Scroll to Section 7 and select Table 7.2.5B for “Motor Vehicle Output.”

The statistics on consumer debt levels were mixed. According to the Federal Reserve total consumer debt fell by 2.2 percent from 2009 to the end of the third quarter of 2010 – indicating consumers may have more money to spend. However, total non-revolving debt, which includes automotive loans were at \$1.59 billion, up slightly from the \$1.58 in 2009.⁶ On the negative side of the ledger, unemployment remains high, ending 2010 at 9.4 percent (lower than the year's average rate of 9.6 percent but well above the 6.1 percent average of the past ten years).⁷ Therefore, at this time unemployment continues to be a drag on the recovery, removing potential buyers from the customer pool and lending uncertainty to the overall recovery.

The Road Ahead

After a dismal 2009, the U.S. auto industry saw the first signs of recovery in 2010. Overall the market increased by over 11 percent and most automakers saw healthy increases in their sales over 2009 levels. A notable exception was Toyota, which had flat sales for the year. The company lost sales (and a month of production) as it struggled with recalls for the Prius, Camry and other models. The total passenger vehicle market only reached 11.5 million units – a far cry from the 17.1 million units sold in 2001 – but the increase from 2009 was still viewed with optimism by many industry players. Last year provided a test to see if the massive restructuring plans implemented by the Detroit 3 (and funded by billions of taxpayer dollars at GM and Chrysler) would succeed. To date the signs are positive and better than many analysts predicted. All three of the Detroit-based companies continued with massive restructuring programs in order to be profitable at smaller volumes than in the past. If the market recovers to the 14/15 million unit range in the near future (as is widely forecast), then these companies should be well-positioned to succeed.

For the Detroit 3, the story for the year 2009 was dominated by the collapse of the domestic industry and the bankruptcies of General Motors and Chrysler. For the year 2010, the story was more one of renewal. General Motors conducted its IPO, making \$23.1 billion and paying back \$13.5 billion to the U.S. Treasury - - bringing the U.S. Government holdings in the company under 50 percent. Although Chrysler had stronger financials going into the third quarter, with an operating profit of \$239 million and a net loss of only \$84 million, by year's end Chrysler posted a \$652 million net loss for 2010. Chrysler still plans for an IPO in 2011. Ford announced an annual 2010 profit of \$6.6 billion; a \$3.8 billion improvement from 2009. The Detroit 3 saw their first increase in combined market share (from 44 percent to 45 percent) since the mid 1990's.

For other groups, Japanese manufacturers failed to keep pace with the market, increasing their sales by only 6.4 percent, largely pulled down by Toyota and Suzuki. German manufacturers outperformed the market, increasing their sales by 14.3 percent, led by a strong performance from VW (sales up 21 percent). Korean manufacturers had another strong year in the United States, with sales up 21.7 percent.

⁶ Federal Reserve Board's monthly consumer credit report, available from:
<http://www.federalreserve.gov/releases/g19/Current/>

⁷ Bureau of Labor & Statistics' unemployment statistics, available from:
<http://www.bls.gov/bls/unemployment.htm>

U.S. production was up 63 percent in 2010, climbing to 7.6 million units. Aside from the reopening of the GM and Chrysler plants that were shut down for a part of 2009, this increase also reflects the start of full scale production at Kia's plant in Georgia and growing overall demand in the United States. VW expects to open its new plant in Tennessee in 2011.

U.S. automotive employment (including auto parts manufacturers) appears to have leveled off in 2010 after facing years of steady declines (with 2009 being a particularly hard year with an employment decline of 24 percent for a loss of 210,000 jobs). Employment in the industry actually inched up two percent to almost 675,000 workers. While manufacturers such as Volkswagen and associated suppliers will soon open and hire more workers, most analysts still see a long-term decline in industry employment as plant efficiency continues to improve.

In 2010, American buyers reversed a recent trend of moving towards increased car sales and shifted their attention back to trucks, with truck sales once again climbing above 50 percent of the market. In 2008 gas prices rose over \$4.00 a gallon and U.S. consumers switched their attention more heavily to cars and away from trucks. Even though gas prices fell closer to the \$1.50 range in early 2009, prices then rose steadily during the year and Americans continued to trend to cars over trucks. However, in 2010 gas prices remained steady for the majority of the year and U.S. buyers turned their attention back to trucks. For the future, buyers may be pushed back towards car purchases as gas prices are rising in early 2011 towards the \$4.00 a gallon range. This may prove to be beneficial to automakers facing government fuel economy mandates to improve fuel efficiency. Without that uptick in prices, vehicle makers could find it difficult to meet fuel efficiency mandates without changing their marketing methods.

Similar to the shift from cars back to trucks, hybrid vehicles sales also suffered declines in 2010. After nearing 3 percent of total sales, hybrids were back down to roughly 2 percent of total sales. This decline occurred despite additional hybrid models making their way to showrooms in 2010. Some of this fallback in hybrid sales may well be due to buyers holding off purchases as they wait for highly anticipated "plug-in" models to reach show rooms. While plug-in electric vehicles have been in the press for several years, they finally started reaching showrooms in small volumes in late 2010. The Nissan LEAF and Chevy Volt are the first of a number of fully electric or plug-in hybrid vehicles that are just beginning to reach the mass market in 2011. In the early years these vehicles will be offered in limited numbers. The primary markets for these vehicles will be early adopters willing to pay a premium for the new technologies and fleet buyers whose heavy usage, easy fueling at a central location, predictable mileage and total lower ownership cost calculations make them able to absorb the higher upfront costs.

It will be several years before these vehicles are sold in high volume. However, these early sales will provide manufacturers valuable experience producing the vehicles, will help gauge consumer reactions and provide real-world data on the vehicles' operations. It will also help sort out which technologies will be "winners" among consumers and which will fall by the wayside into history's dustbin. The results won't really start becoming known until the 2014-2015 time-frame when typical buyers will have to opt for these advanced technologies if companies are to meet federal fuel economy mandates.

In addition to advanced engine and powertrain technology-related investments, automakers are also investing in electronic technology and infotainment options as consumers increasingly demand these features. These new options have both benefits and drawbacks. There is concern over increased driver distraction with infotainment options such as automotive smartphone-integration technology. However, crash-avoidance technology offers increased safety. In fact, backup cameras, which aim to reduce blind zones behind vehicles, have been proposed to become standard equipment by 2014. It truly is a transitional time for the industry, for consumers, and for regulators. As new electronic technologies and alternative energy vehicles are introduced, consumers will need to become educated on their use, and relevant infrastructure, regulations, and standards will continue to be developed.

Overall, the U.S. auto industry should see continuing improvement in 2011 as sales levels gradually return to normal (or perhaps to a new, lower normal). High unemployment will continue to be a drag on the recovery. A key factor will be the availability of consumer credit to finance purchases.

Challenges in the global market will continue, with traditional challengers (European and Japanese manufacturers) and new challengers (Korean, Chinese, Indian and other Asians) potentially impacting U.S. auto companies in markets around the world. Technology will increasingly play a role as some automakers make better, or luckier, decisions regarding hybrids, electrics, diesels or other alternatives to today's gas internal combustion engines. More information on trade, global markets and other key issues will follow in a second part of this report later this year.

Tables and Graphs

– INDUSTRY TABLES –

Table 1

Consumers' Expenditures (PCE) (Billions of Current Dollars)							
	2004	2005	2006	2007	2008	2009	2010
Cars, New	91.9	97.4	100.0	95.9	85.7	72.1	67.0
Light Trucks, New	160.5	151.4	133.1	137.3	99.2	93.2	106.0
Total, New	252.4	248.9	233.0	233.3	184.5	165.3	173.0
Net, Used Autos	107.1	112.7	113.5	114.5	106.1	104.1	115.3
Total	359.5	361.6	346.5	347.8	291.0	269.4	288.3
Source: U.S. Bureau of Economic Analysis 2010 based on seasonally adjusted annual rates from Q3 2010							

Table 2

U.S. Motor Vehicle Production (Millions)							
	2004	2005	2006	2007	2008	2009	2010
1Cars	4.2	4.3	4.4	3.9	3.8	2.2	2.7
Light Trucks	7.3	7.2	6.4	6.5	4.7	3.3	4.9
Total LV	11.6	11.5	10.8	10.5	8.5	5.6	7.6
Med/Heavy Trucks	0.358	0.424	.462	.279	.225	.137	.146
Total All	12.0	11.9	11.3	10.7	8.7	5.7	7.7
Source: Ward's Automotive Reports							

Table 3

U.S. Motor Vehicle Sales (Millions)							
	2004	2005	2006	2007	2008	2009	2010
Cars	7.5	7.7	7.8	7.6	6.8	5.4	5.6
Light Trucks	9.3	9.2	8.7	8.5	6.4	5.0	5.9
Total LV	16.8	16.9	16.5	16.1	13.2	10.4	11.5
Med/Heavy Trucks	0.4	0.5	.5	.4	.3	.2	
Total All	17.3	17.4	17.0	16.5	13.5	10.6	
Source: Ward's Automotive Reports							

Table 4

Total Passenger Vehicle Market					
	1986	2007	2008	2009	2010
TOTAL SALES	16,121,645	16,067,482	13,176,597	10,392,150	11,542,591
AMERICAN BRANDS					
Total Sales	11,813,719	8,181,158	6,236,502	4,577,736	5,195,949
Share of Market	73.3%	50.9%	47.3%	44.0%	45.0%
JAPANESE BRANDS					
Total Sales	3,386,912	5,961,900	5,236,305	4,208,295	4,475,708
Share of Market	21.0%	37.1%	39.7%	40.5%	38.8%
GERMAN BRANDS					
Total Sales	503,550	947,785	889,639	762,616	871,841
Share of Market	3.1%	5.9%	6.8%	7.3%	7.6%
KOREAN BRANDS					
Total Sales	168,882	772,482	675,139	735,127	894,496
Share of Market	1.0%	4.8%	5.1%	7.1%	7.7%
Source: Derived from Ward's Automotive Reports by U.S. Department of Commerce/Automotive Industries Team					

Table 5

Light Truck Sales					
	1986	2007	2008	2009	2010
TOTAL TRUCK SALES	4,642,687	8,449,070	6,363,228	4,991,260	5,907,159
Share of Total Pass. Vehicle Market	28.8%	52.6%	48.3%	48%	51.2%
AMERICAN BRANDS					
Total Sales	3,657,896	5,392,751	3,918,652	2,885,572	3,408,272
Share of Truck Market	78.8%	63.8%	61.6%	57.8%	57.7%
JAPANESE BRANDS					
Total Sales	972,503	2,461,930	1,989,779	1,656,853	1,941,019
Share of Truck Market	20.9%	29.1%	31.3%	33.2%	32.9%
GERMAN BRANDS					
Total Sales	12,288	179,771	160,183	165,967	204,008
Share of Truck Market	0.3%	2.1%	2.5%	3.3%	3.5%
KOREAN BRANDS					
Total Sales	0	315,847	229,377	228,500	293,119
Share of Truck Market	0.0%	3.7%	3.6%	4.6%	5.0%
Source: Derived from Ward's Automotive Reports by U.S. Department of Commerce/Automotive Industries Team					

Table 6

Passenger Car Sales					
	1986	2007	2008	2009	2010
TOTAL CAR SALES	11,478,958	7,618,412	6,813,369	5,400,890	5,635,432
Share of Total Pass. Vehicle Market	71.2%	47.4%	51.7%	52.0%	48.8%
AMERICAN BRANDS					
Total Sales	8,155,823	2,788,407	2,317,850	1,692,164	1,787,677
Share of Car Market	71.1%	36.6%	34.0%	31.3%	31.7%
JAPANESE BRANDS					
Total Sales	2,414,409	3,499,970	3,246,524	2,551,442	2,534,689
Share of Car Market	21.0%	45.9%	47.6%	47.2%	45.0%
GERMAN BRANDS					
Total Sales	491,262	768,014	726,068	596,649	667,833
Share of Car Market	4.3%	10.1%	10.7%	11.0%	11.9%
KOREAN BRANDS					
Total Sales	168,882	456,635	445,762	506,627	601,377
Share of Car Market	1.5%	6.0%	6.5%	9.4%	10.7%
Source: Derived from Ward's Automotive Reports by U.S. Department of Commerce/Automotive Industries Team					

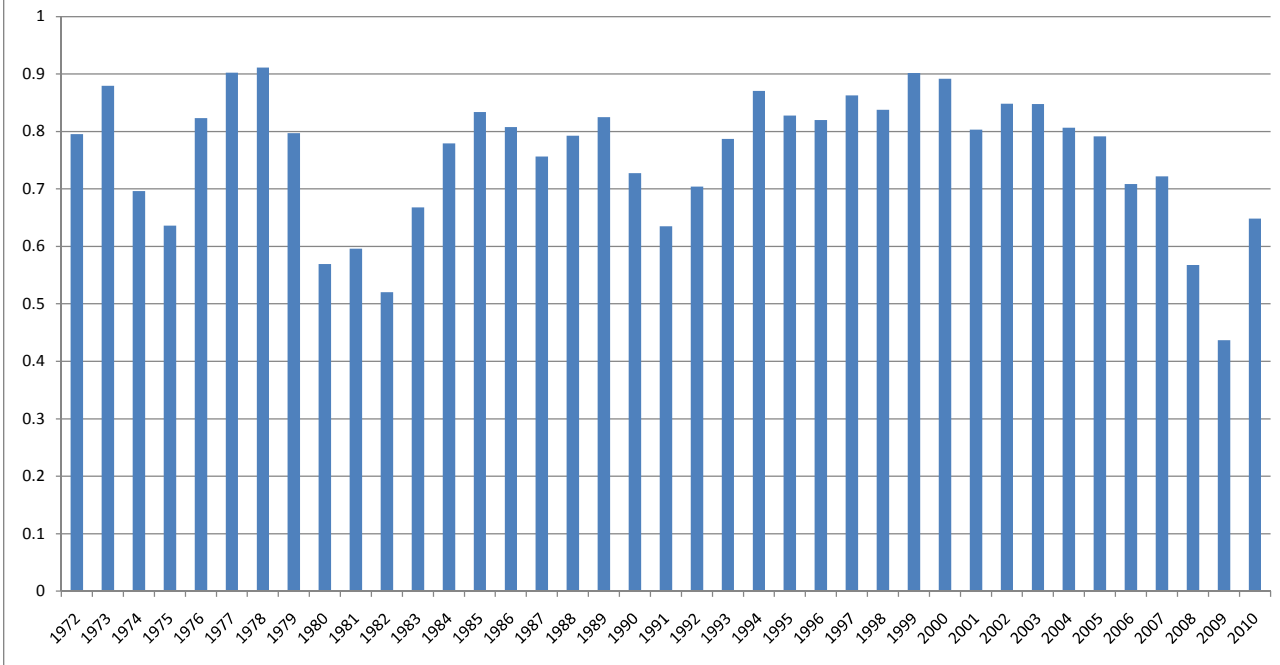
Table 7

U.S. Automotive Industry Average Annual Employment (1,000s)			
(NAICS Based)	2008	2009	2010
Automobiles (336111)	117.2	89.7	87.5
Light Trucks and utility vehicles (336112)	46.9	29.8	27.9
Total Light Vehicles	162	119.4	115.4
Heavy Duty Trucks (33612)	27.4	23.0	23.9
Total vehicles	189.4	142.4	139.3
Motor Vehicle Bodies and Trailers (3362)	140.2	105.2	111.1
Motor Vehicle Parts (3363)	543.7	418.7	429.4
Motor Vehicle Parts (3363) and Motor Vehicle Bodies and Trailers (3362)	683.9	523.9	540.5
<i>TOTAL</i>	873.3	666.3	679.8
Source: U.S. Department of Labor/Bureau of Labor Statistics 2010 annualized from 10 month data			

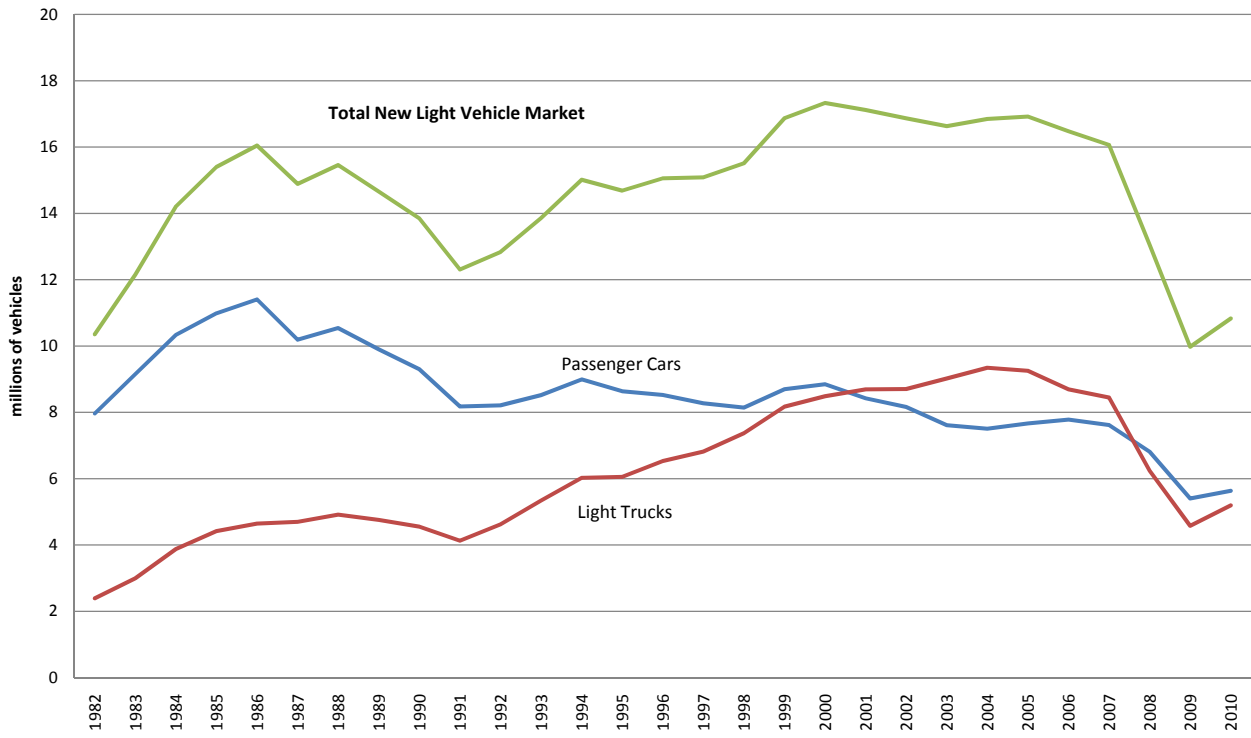
Table 8

Total Payroll & Fringe Benefits (Billions of Dollars)					
	2004	2005	2006	2007	2008
Car Plants	7.5	7.6	7.4	7.1	6.5
Light Truck Plants	11.6	10.9	9.9	9.3	8.1
Total LV Plants	19.1	18.4	17.3	16.4	14.6
Heavy Truck Plants	1.9	2.1	2.2	1.9	1.8
Total All Plants	21.0	20.6	19.5	18.3	16.4
Source: U.S. Census Bureau 2007 Economic Census and Annual Surveys of Manufactures					

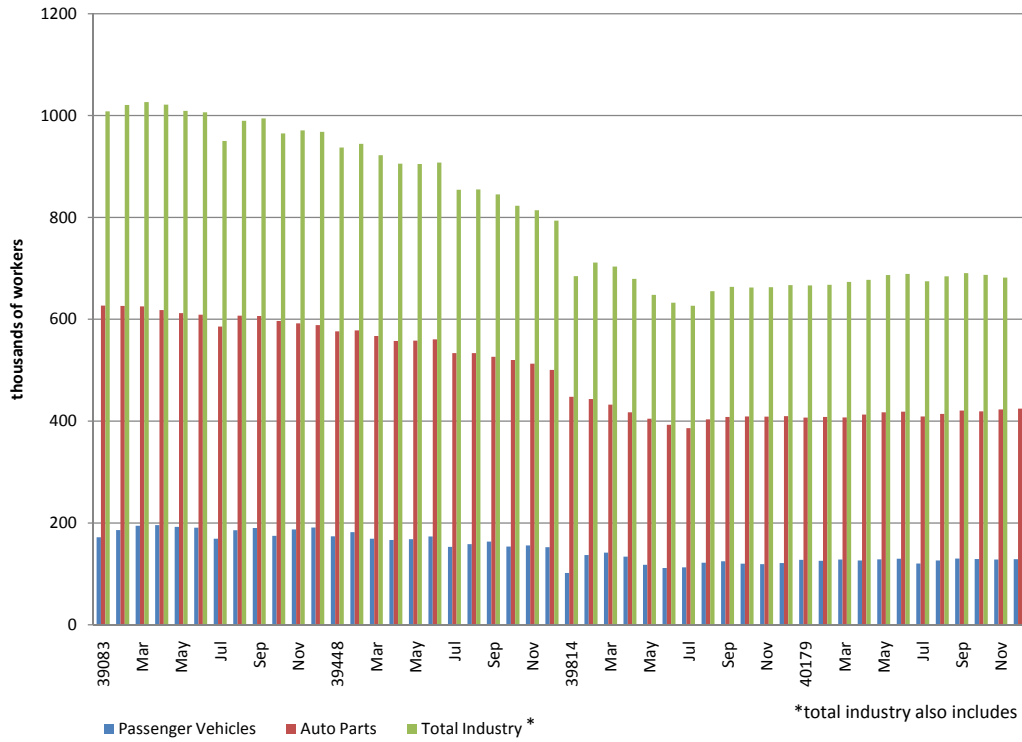
While light vehicle plant capacity utilization recovered in 2010, it was still hampered by Toyota's month long shutdown to address recall issues. Higher utilization rates also reflect the high number of plants shuttered in 2009.



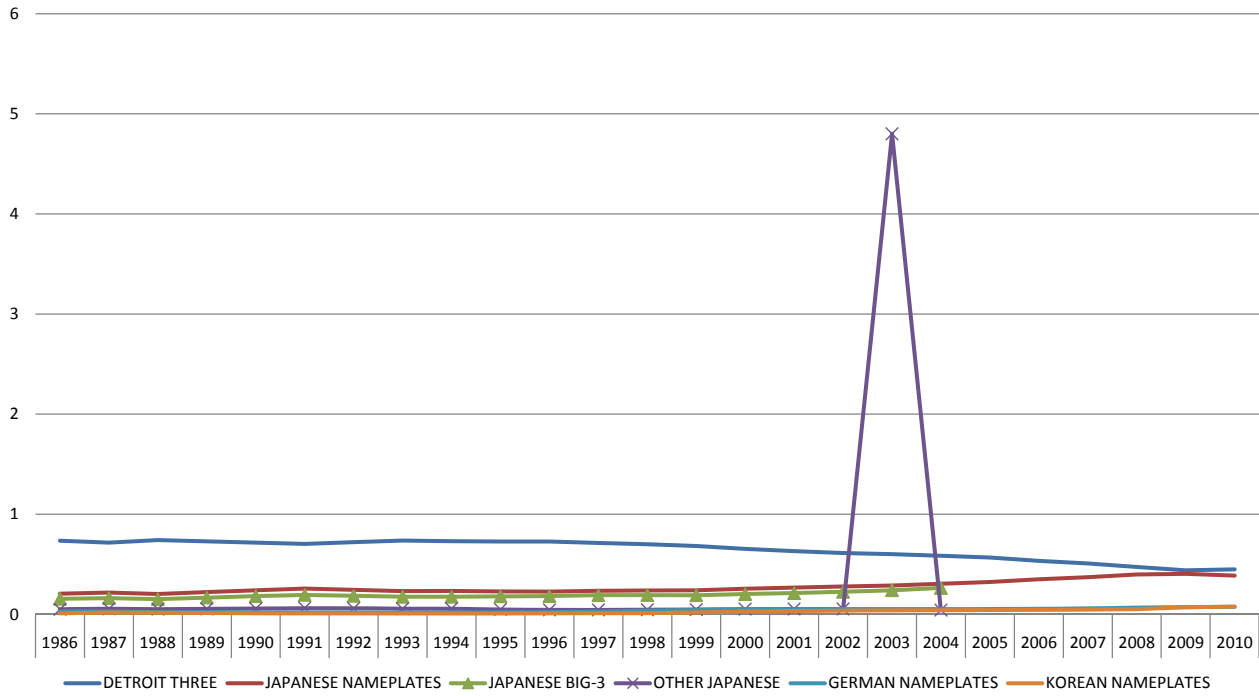
While car sales outpaced truck sales again, truck sales recovered more rapidly in 2010, up 14 percent compared to four percent for cars.



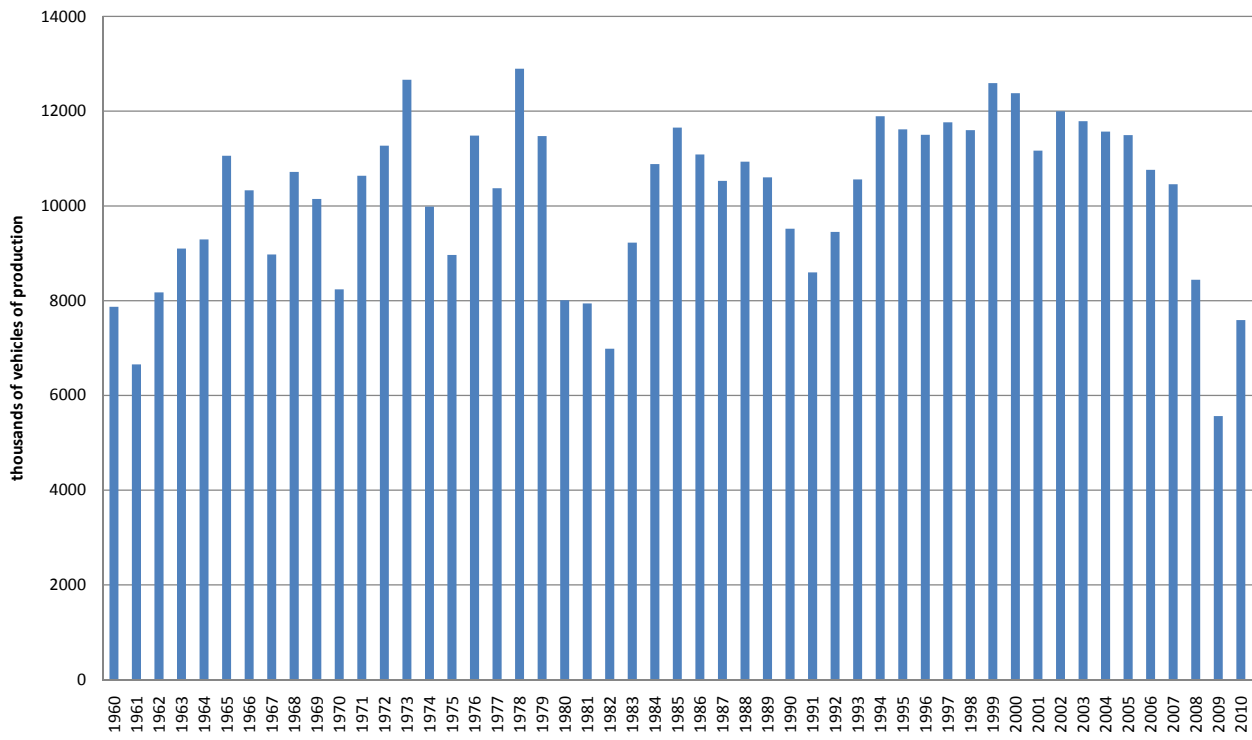
After years of steady declines, automotive employment leveled off over the last 20 months.



For the first time in many years, the Detroit Three's share of the U.S. market increased and Japanese share decreased. German and Korean manufacturers continued their upward climb.



After dropping to desperate levels in 2009, production recovered to a level which, while still low historically was a dramatic improvement



Personal Consumption Expenditures on Passenger Vehicles

While spending on new cars continued to drop, spending on trucks and used vehicles increased in 2010.

