

Automotive Products Industry Assessment

Industry Overview and Global Competitiveness

Industry Definition

The automotive products industry is comprised of companies that produce original equipment (OE) and “aftermarket” products for motor vehicles. ITA and industry associations estimate that original equipment products account for 67 to 75 percent of total automotive products production.

Original equipment are products that go into the manufacture of a motor vehicle (automobile, light truck, or medium/heavy truck) or are purchased by the assembler for its service network to be used as an aftermarket part.

Aftermarket products are broken into two categories: replacement products and accessories. Replacement products are automotive parts built or remanufactured to replace OE products as they become worn or damaged. Accessories are products made for comfort, convenience, safety, performance, or customization, and are designed for add-on after (or sometimes during), the original sale of the motor vehicle.

The North American Industry Classification (NAIC) codes used by ITA’s Automotive Industries Team (AIT) to identify automotive products are:

336211	Motor Vehicle Body Manufacturing
336311	Carburetor, Piston, Piston Ring, and Valve Manufacturing
336312	Gasoline Engine and Engine Parts Manufacturing
336321	Vehicular Lighting Equipment Manufacturing
336322	Other Motor Vehicle Electrical and Electronic Equipment Manufacturing
336330	Motor Vehicle Steering and Suspension Components
336340	Motor Vehicle Brake System Manufacturing
336350	Motor Vehicle Transmission and Powertrain Parts Manufacturing
336360	Motor Vehicle Seating and Interior Trim Manufacturing
336370	Motor Vehicle Metal Stamping
336391	Motor Vehicle Air-Conditioning Manufacturing
336399	All Other Motor Vehicle Parts Manufacturing

Global Competitiveness of U.S. Producers

Based on the latest available information, the Original Equipment Suppliers Association (OESA) estimated that the North American original equipment parts market in 2009 was \$119 billion, which was about 17 percent of the total global market of \$695 billion. Supplier industry sales were significantly impacted in 2008 and 2009 by market declines caused by the financial crisis. Automotive supplier employment in the United States was an estimated 470,000 people in 2009, down significantly by 22 percent, from 603,800 in 2008.

The global automotive products industry is dominated by manufacturers headquartered in the

United States, Canada, Europe, Japan, and Korea, all of which sell and invest in each others' backyards. China is experiencing a growth of automotive product manufacturers headquartered there and Chinese manufacturers have been seeking investment opportunities and investing in other countries. Likewise, Indian-based automotive firms are growing rapidly and beginning to seek offshore production and sales opportunities.

For the past few years, the top 10 global OE automotive products suppliers have included: Robert Bosch GmbH; Denso Corporation; Continental AG; Magna International Inc.; Aisin Seiki Co. Ltd.; **Johnson Controls**; **Delphi Corporation**; Faurecia; ZF Friedrichshafen AG and **TRW Automotive** (which rejoined the list in 2008). Of these manufacturers above, three (bolded) are headquartered in the United States. A notable change to the top ten global OE suppliers is Delphi's descent from the leading global OE supplier in 2003 to number seven in 2008. The top 10 companies saw a 13 percent decrease in global sales to \$217.5 billion in 2008 from \$249.9 billion in 2007. The recession detrimentally impacted suppliers and automakers around the world.

The fortunes of the U.S.-based supplier industry - both small and large firms alike - remain largely tied to the performance of the Detroit 3 - GM, Ford, and Chrysler. However, the industry is trying hard to diversify its sales. For example, in 2008, only about 22 percent of Delphi's global sales were to GM (down from approximately 70 percent in 2004); nonetheless, the North American market still accounted for about 42 percent of Delphi's sales. Delphi was able to emerge from Chapter 11 bankruptcy in October 2009 after four years of restructuring. Delphi's emergence from Chapter 11 relieves financial uncertainty and stress placed on its former parent, GM.

Small and medium-sized enterprises (SME's) in particular have been struggling to survive with slim profit margins that were all but eliminated when the automakers slashed vehicle production in the last quarter of 2008. The Motor and Equipment Manufacturers Association (MEMA) reported there were over 50 bankruptcies and about 200 liquidations in 2009 in the automotive supplier sector.

The Detroit 3's share of the U.S. light vehicle market has been dwindling for years, along with its collective sales volume. In 1965, the Detroit 3's U.S. market share exceeded 95 percent, but by 2009 it had fallen to a new low of 40 percent, after slipping below 50 percent for the first time in 2008.

The domestically-based parts industry faces increasing competition from European and Asian-based products manufacturers, many of whom have set up local operations to supply the U.S. assembly plants of Japanese, Korean, and German vehicle makers, as well as the Detroit 3. Nonetheless, the United States remains a leading manufacturing location for the production of automotive products, aided in good measure by the new entrants, and the weak dollar.

The United States shipped an estimated 9.3 percent of 2008's worldwide automotive products exports, placing it second behind Germany (at 15.1 percent), but ahead of others including: Japan (8.5 percent); China (6.8 percent) and France (5.9 percent). However, just ten years previously (1997), the U.S. global export share was much higher at 18 percent. The contraction

is magnified by the fact that most U.S. automotive parts exports are destined for its North America Free Trade Agreement (NAFTA) partners, Canada and Mexico, where they are mostly incorporated into vehicles for export back to the United States. Without these two markets, the U.S. global exports would fall sharply to about 3.8 percent, reflecting the integrated nature of the NAFTA market.

OESA also reports that consolidation is prevalent requiring the industry to shift from a multi-country to a more streamlined, cost-effective global operating model. Therefore, fundamental issues challenging the automotive supplier industry around the globe are shifting market share; increasing input costs; maintaining collaborative supply chain relationships; operating during rationalization of the industry; cutting costs; and, increasing access to private equity capital.

Trends and Outlook

The automotive products industry is expected to be greatly influenced by the following trends:

- (1) The U.S. economy is expected to grow slowly over the next year and the U.S. automotive market is expected to grow slowly along with it. Increased demand for OE parts should help ease the strain currently being felt by the U.S. automotive parts industry. To the extent the Detroit 3 can continue to recover, the health of the U.S. automotive parts industry should also improve.
- (2) The evolution of a new business model is predicated upon localized vehicle assembly and requires very short supply lines as well as increased supplier responsibilities and expenses. Vehicle manufacturers worldwide increasingly outsource the production of auto parts components to independent suppliers, while requiring them to locate in close proximity to the vehicle manufacturers' assembly plants to comply with lean manufacturing/ just-in-time (JIT) principles. The vehicle producers are also shifting design-engineering costs and supply chain management responsibilities to a reduced number of very large "Tier One-Half" system integrators.
- (3) Due to consumer demand and environmental standards, there will be a trend toward more environmentally-friendly and fuel-efficient vehicles. Automakers are striving to develop new cars, including alternative fuel vehicles. This push is due, in part to new environmental and corporate average fuel economy (CAFE) standards that will be in force in 2020, as well as consumer demand. Suppliers are being called upon by the automakers to develop more light-weight, fuel-efficient components and to develop new components for alternative fuel power trains.

Domestic Environment

Assessment of Industry's Domestic Environment

Regulatory and non-regulatory policies in the United States impose a significant burden on U.S. automotive products manufacturers, increasing the cost of both inputs and outputs and thereby reducing their competitiveness versus manufacturers in many emerging markets. In particular, automotive parts suppliers believe that the following federal and foreign policies need to be addressed if the international playing field is to be leveled: access to capital; pollution abatement

compliance; intellectual property rights (IPR) protection; investment tax incentives; the financial impact of product liability litigation; healthcare expenses; union/employer obligations; and, education and training programs for current and prospective employees.

Access to Capital

Automotive product suppliers operate on very thin profit margins. Reductions in vehicle production result in suppliers' reducing their workforces, closing plants, reducing employee compensation and benefits, and liquidating companies. OESA estimated the breakeven unit level for 2010 is 9.5 million units and predicts the production volume will be 10.1 million units. If capital is not available to manufacturers and parts suppliers, the industry may not be able to meet these minimal production levels. Credit remains tight for suppliers. The Federal Government created a \$5 billion bailout program for parts suppliers in March 2009 (ended April 2010). However, suppliers argued the program was flawed and hampered by red tape. While GM and Chrysler were going through bankruptcy, Citibank was selected to administer funds to chosen suppliers. The chosen suppliers would get paid early for their shipments or use government guarantees of payment to borrow from their private lenders. Ford, which did not file for bankruptcy, instituted its own program to accelerate payments.

Regulations affecting the domestic industry and international competitiveness

The National Association of Manufacturers (NAM) and Manufacturers Alliance for Productivity and Innovation (MAPI) examined the affect of regulatory compliance on U.S. manufacturing and found that the costs of pollution abatement alone were estimated to be the equivalent of a 12 percent excise tax.

Automotive products manufacturing facilities generate waste in many forms (water, greenhouse gas emissions, heavy metals, chemicals, etc.). Consequently, U.S. producers generally operate under a fairly heavy regulatory burden regarding waste recovery and environmental remediation. This can hurt cost competitiveness in three ways: 1) handling large amounts of waste is expensive; 2) keeping people on staff with the expertise to ensure that waste is handled in accordance with regulations, and to process the paperwork, is also costly; and, 3) there can be significant corporate and personal liabilities associated with handling waste and preventing environmental contamination.

We have no sector-specific information on the costs of compliance with federal regulations. However, as a benchmark (according to the above mentioned NAM report), the United States spent 1.6 percent of its GDP on pollution abatement during the late 1990s. Of that amount, U.S. manufacturers accounted for 83 percent of the total, and on a trade weighted basis, the burden of pollution abatement expenditures was estimated to reduce U.S. cost competitiveness by at least 3.5 percentage points. Of our nine largest economic competitors, only South Korea spends more on pollution abatement as a percentage of GDP; this is true even of the so-called "green economies" of the European Union (EU).

There are considerable product regulations that must be met to market vehicles in the United States. Self-certification, compliance, and liability for Federal Motor Vehicle Safety Standards (FVMSS) overseen by the National Highway and Traffic Safety Administration (NHTSA) are part of the cost burden U.S. manufacturers' face to sell products in the United States. Parts-

specific safety standards require measurable increases in overhead and direct manufacturing costs. While all products offered in the U.S. market must comply, these expenses are not borne by suppliers in less, or un-regulated, second countries seeking to supply their own or third country markets. Thus, foreign-based companies producing only for or from less regulated markets enjoy a price advantage over U.S. producers -- unless U.S. firms were to produce specifically for those markets.

New CAFE standards should help improve the competitive position of the Detroit 3. Because the old rules classified all cars under one heading, manufacturers selling primarily larger cars faced difficulties reaching compliance that their competitors did not face. The Detroit 3 were most negatively affected due to a sales mix weighted toward larger vehicles. The new rules provide separate classifications based on the various vehicle footprints which greatly reduce the competitive disadvantage the Detroit 3 will face in meeting CAFE requirements. In addition, by requiring higher mileage from vehicles produced for the U.S. market, those vehicles will be more competitive in overseas markets with nearly universally higher fuel prices.

Prospective regulations and how they affect the industry

One of the principal international issues facing the industry is the growing problem of counterfeit production. According to private sector estimates, automotive suppliers lose an estimated \$12 billion worldwide and \$3 billion domestically in sales annually due to counterfeiting. These losses correlate to potentially 200,000 to 250,000 fewer U.S. supplier manufacturing jobs, according to MEMA. Industry trade associations successfully lobbied for enactment of “The Stop Counterfeiting in Manufactured Goods Act” (HR 4358) in 2006 to strengthen the United States’ ability to punish counterfeiters in the United States. U.S. law previously allowed only forfeiture and destruction of counterfeit goods for sale. It now allows agencies to seize and destroy equipment and materials used in the production of counterfeit products. Industry continues to press for stronger laws and more federal resources for protecting IPR in the United States and abroad.

The industry has raised its concerns that China may combine an escalating consumption of valuable raw materials with an export control program that would violate the rules of the World Trade Organization (WTO). Therefore, industry seeks U.S. government assistance to address these issues since automotive suppliers cannot be competitive in the global marketplace if companies are not able to secure raw materials at a stable price.

Domestic business environment (non-regulatory policies)

The relatively high U.S. corporate tax rates also detrimentally impact many U.S. industries’ ability to remain competitive. Unlike all major trading partners (except France), the United States taxes foreign source corporate income at the same rate as domestic source corporate income. While competitors are taxed at the prevailing rate in the territory in which the income is derived, U.S. manufacturing competitors usually face lower corporate income taxes on this income. The widespread adoption of value-added taxes (VAT) by our trading partners further aggravates the situation. U.S. exports face both U.S. corporate taxes and the VAT of the destination countries while imports to the United States face no VAT and usually lower corporate income taxes.

U.S. tort litigation is another major policy cost imposed disproportionately on U.S. manufacturers. Moreover, U.S. parts manufacturers face higher costs associated with actual or threatened tort litigation in the United States than do foreign manufacturers, and U.S. business as a whole. U.S. education policy is also a pending potential problem for U.S. manufacturers. As the Baby Boomers begin retiring, U.S. parts manufacturers are reporting problems finding qualified candidates and the education system does not appear to be providing the skills needed.

The pending commercialization of plug-in electric vehicles may well be hindered in the U.S. due to the extremely decentralized nature of U.S. building codes and standards authorities. With roughly 44,000 local approving agencies, there are considerable concerns about the ability of local authorities to become familiar enough with the installation of charging devices without significantly impacting early purchasers. Many customers will likely avoid the purchase of electric vehicles if they will have to wait a month to have a home charger installed, Unfortunately, one month wait times are likely if agencies believe that the charging devices are unique in their installation requirements. The charge points are designed to plug into standard home dryer outlets.

Trading Environment

Barriers to U.S. Automotive Parts Exports

- Non-Tariff Barriers (NTBs), often in the guise of safety or technical regulations, reduce U.S. suppliers' access, especially aftermarket suppliers, to many markets. For example, Venezuelan-specific "safety" regulations for aftermarket wheels make the market uneconomical for U.S. producers, yet there are no known safety problems for these regulations to address. Venezuela enacted its safety standard without a public comment period and did not notify the WTO until after-the-fact. The European practice of "presumed hazard" is another NTB to trade. For example, with Italy in the forefront in Europe, if there is no written regulation permitting a particular action, then it may not be done. For instance, a vehicle owner cannot install aftermarket wheels on his vehicle unless there is specific written authorization to do so. This presumption of hazard sharply reduces the market for U.S.-made accessories.
- The U.S. industry is also trying to open markets for remanufactured parts. Many countries restrict remanufactured parts under bans on the import of used parts. Used vehicle and parts bans are normally "justified" as an environmental concern. Remanufactured products, however, provide two positive environmental benefits: first, they reduce the volume of material entering the waste stream by re-directing retired products to the remanufacturing process. Remanufacturing thereby reduces the amount of raw materials being consumed. Second, compared to manufacturing products from all new materials, the remanufacturing process itself generates significantly smaller impacts on natural resources and the environment (through lower energy consumption and fewer waste materials). Of the products that are imported into the United States for remanufacturing, roughly 70 percent of the material goes back into remanufactured products and 30 percent is recycled into raw material. Indonesia, South Africa, and

South Korea are among the many countries that ban or significantly restrict entry of these environmentally friendly products.

- IPR Protection is another concern among U.S. automotive parts manufacturers. China, India, and Russia are believed to be the prime sources of counterfeit products. U.S. parts companies are encouraged to open manufacturing facilities in these countries by the automakers. These markets are large enough that manufacturers invest and pursue sales. To do so, they often partner with a local company and share technology. However, IPR protection is notoriously insufficient, and there have been numerous complaints of IPR theft.

Impact of other U.S. priorities on the international trade of automotive parts industry

The U.S. government seeks to maintain low fuel prices to help maintain employment and improve living standards of U.S. citizens. However, relatively low fuel prices tend to make U.S. motor vehicle consumers less sensitive to increasing fuel efficiency. On the other hand, consistently high fuel prices in most other markets reduce the competitiveness of U.S.-designed vehicles in those countries since they are generally not even considered by foreign consumers as economical. Low domestic fuel prices provide limited incentive for the purchase of more fuel efficient vehicles leading to the production of vehicles which are less competitive globally where fuel prices tend to be significantly higher. The low incentive for fuel efficient vehicles will also make marketing new vehicle technologies such as plug-in or hydrogen fuel cell vehicles harder potentially limiting U.S.-based production and technological innovation in what may be the future directions of automotive technologies.

More directly, U.S. automotive products manufacturers are significantly impacted by the direct and overhead expenses of complying with U.S. safety and emission regulations, which are among the most stringent in the world. This also results in U.S. auto parts manufacturers absorbing higher costs.