The Current State of the U.S. Automotive Parts Market

U.S. automotive suppliers are reasonably well positioned after nearly a decade of steady decline and then the near implosion of 2008-2009. After emerging from the recession, U.S. suppliers, overall, have improved balance sheets and lower breakeven points than they have had for over a decade[1]. The recession was extremely difficult for the U.S. automotive industry and lead to major restructuring for many companies. Industry analysts estimated that suppliers were operating at an average of about 55 percent capacity in 2009, which was below the breakeven point for many. For those suppliers that were able to survive the downturn in 2009, 2010 offered them an opportunity to stabilize their operations. Industry surveys indicated that, on average, the majority of suppliers reached their break-even point with the sale of around 9.5 million passenger cars and light trucks in 2009. With the automotive market slowly recovering, they have begun increasing capacity. Recent surveys say that the break-even point rose to roughly 11 million at the end of 2011. With U.S. sales of 11.6 million units in 2010 and 12.7 million in 2011, most suppliers were able to achieve expanded profitability and, according to press reports, automotive parts companies are gradually increasing employment in response to rising demand[2].

Automotive parts are defined as either original equipment (OE), or aftermarket parts. Original equipment parts that are used in the assembly of a new motor vehicle (automobile, light truck, or truck) or are purchased by the manufacturer for its service network are referred to as original equipment service (OES) parts. Suppliers of OE parts usually are broken into different levels for the definition of supplier status along the supply chain. The first level, “Tier 1," supply the vehicle manufacturers. “Tier 2" suppliers sell parts and materials to the Tier 1 suppliers. “Tier 3" suppliers sell to Tier 2 suppliers and this continues down the line. As the industry became painfully aware following the Tsunami in Japan and flooding in Thailand, there are layers of sub-suppliers who could be classified as far down as “Tier 8” and below. Even within this tiered system, there is often overlap between the tiers. Suppliers can primarily supply higher tiered part suppliers but also sell directly to the vehicle manufacturers.

Original equipment production accounts for an estimated two-thirds to three-fourths of the total automotive parts production. Thus, automotive parts consumption is heavily linked to the demand for new vehicles. If vehicle production goes down, automotive parts production and sales follow.

Aftermarket parts are divided into two categories: replacement parts and accessories. Replacement parts are automotive parts built or remanufactured to replace OE parts as they

[1] A company’s breakeven point is the volume of products it must sell to cover all costs of operation. In the automotive industry it is frequently quoted at industry level sales volumes with the supplier assuming fixed percentages of the total market.

[2] “Auto Parts Suppliers Hiring As Fast As They Can,” By Tracy Samilton, National Public Radio, March 14, 2012, http://www.npr.org/2012/03/14/148477399/auto-parts-suppliers-hiring-as-fast-as-they-can

become worn or damaged. Accessories are parts made for comfort, convenience, performance, safety, or customization, and are designed for add-on after the original assembly of the motor vehicle.

The U.S. automotive industry as a whole is a key component of the nation's manufacturing base. In a typical year, it accounts for about five percent of GDP and 16 percent of all durable goods shipments. Like manufacturing shipments overall, U.S. auto parts industry shipments by value remained relatively flat between 1999 and 2007. During the same time period, U.S. GDP climbed from $9.4 trillion to $14 trillion (GDP to shipments chart). Likewise, automotive parts industry shipments declined much faster and further than GDP during the recession. In fact, it fell much faster and further than the manufacturing sector. Parts shipments fell 14 percent from 2007 to 2008 and an additional 24 percent from 2008 to 2009. Over the same period manufacturing sector industry declines were three percent and 14 percent respectively.

With shipments steady, increases in productivity led to nearly constant but somewhat gradual job shedding and industry consolidation between the years 2001 and 2007. Employment in the sector declined from its all-time peak of 921,000 in 2000 to 673,000 in 2007 (See Employment Chart). Quite a few automotive parts suppliers had gone on purchasing binges in the late 1990s and piled up significant debt in the process. The debt made them less capable of coping with the increasingly competitive market. Merger, acquisition and bankruptcy activity in the sector was therefore high throughout the decade. The recession led to significantly quicker exits of both employees and employers. Auto parts sector employment dropped 10.2 percent in 2008 to 604,000 and 23 percent more in 2009 to 464,000. Employment stabilized in 2010 and increased for the first time in over a decade to 487,000 in 2011. The global supplier segment saw almost 300 mergers and acquisitions in 2010; the previous high was 275 in 2007.

One of the reasons U.S. automotive parts shipments remained relatively flat over the period 1999 through 2007 was that imports increased significantly. Imports climbed from $63 billion to $100 billion during that time period. Exports also increased but not enough to offset the growing imports; thus, our automotive parts trade deficit increased over the period. Our largest providers of imported parts are our NAFTA partners, accounting for 45.5 percent in 2011. Japan is the next largest automotive parts exporter to the United States with 12.5 percent of imports, followed by China with 11.2 percent of imports. China's producers are rapidly increasing their share of the U.S. import market growing from only 2.4 percent in 2000.

In 2000, the majority of indigenous Chinese suppliers were uncompetitive and produced low quality products. International automakers helped spur foreign supplier investment in China over the past decade which made those rising exports possible by pressuring their international suppliers to locate production there. The automakers did so in effort to hold down costs and maintain their own competitiveness both in China and in markets like the United States. Thus, many U.S. and other international auto parts companies opened plants and expanded their Chinese production in order to supply the international automakers' Chinese joint ventures, and

to use their operations in China to export to the global automotive OE and aftermarket, including the United States. In the process some have also become suppliers to domestic Chinese automakers, which have helped improve the product quality of these firms.

Over the past decade, automakers have put pressure on their suppliers through price concessions, tasking the suppliers to take on more research, design and manufacturing responsibilities, and forcing suppliers to absorb rising input costs. Suppliers that survived the recession slashed costs by cutting capacity, laying off workers, and restructuring financially. As vehicle sales rebounded and suppliers started to realize some profit from their cost cutting efforts, the automakers have resumed some of their pressure on suppliers to cut prices.

Pressure for incumbent U.S.-based firms is further exacerbated by global competition in the parts industry. As Japanese, German, and Korean-based vehicle manufacturers have gained U.S. market share, they've maintained their relationships with their traditional supplier base. Many of those home market suppliers have created or expanded "transplant" capacity in the United States to meet their traditional automaker's U.S. production needs. At the same time those transplant suppliers have aggressively sought business from the Detroit 3. In addition, suppliers in many lower cost markets have improved their product quality and are becoming capable of supplying even greater shares of U.S. demand from abroad; hence, generally raising automotive parts imports. Some of the pressure to produce parts overseas is to locate near global automakers assembly plants abroad to enable "just in time" parts delivery.

To survive, many domestic parts manufacturers had to adapt to these numerous challenges. Some suppliers willingly took on the new responsibilities offered to them by automakers. Some transformed themselves into "Tier One-Half systems integrators," that engineer and build complete modules (for example, an entire interior, 4-corner suspension sets, or an entire rolling chassis) and assumed both product design and development responsibilities, and downstream supply chain management functions previously undertaken by the automakers.

Dramatic growth in China, India, and other Asian economies, has led to increased costs for critical raw materials. Demand in the developing world, primarily China, has been a major driver behind increasing raw materials and energy commodity prices.

This growth in developing markets has also led to increasingly globalized supply chains which is itself vulnerable to disruptions. The supply disruptions caused by the earthquake in Japan and later floods in Thailand led to input shortages at many U.S. firms. Automotive parts suppliers and vehicle assemblers could not source components and thus were unable to meet demand leading to lost sales and any added employment that would accrue.

Financial pressures from higher raw material prices have been affecting ties between suppliers and automakers, and between higher tier suppliers and their lower tier suppliers. Automakers are allowing material cost pass-throughs from suppliers, usually on a case-by-case basis, if the supplier can prove extraordinary pressures because of raw material costs and demonstrate efforts

to keep costs down. Suppliers are concerned as the market rebounds that prices for raw materials will also increase. As an example, steel prices rose from $773 per metric ton in April 2009 to $913 per metric ton in April 2011 before settling back to $787 in January of 2012.

The continued pressure has forced automotive suppliers to diversify into alternative fields, such as space and wind energy. While many were not able to find sufficient work to keep their doors open, the increasing diversification of those successful, combined with an improving automotive market and improved fundamentals at GM, Ford, and Chrysler should help to slow U.S. market share loss. Industry consolidation and automakers' purchasing trends have cut the number of U.S. automotive suppliers by roughly one-half since 2000, and by about five-sixths since 1990.

The pressure for consolidation may decline, but it will not end. Improving production efficiency alone will continue to require fewer producers for the same level of industrial output. Unit sales will have to continually rise to accept the added output, or the pressure to combine or reduce suppliers will increase. Chinese and Indian-based automakers will also compete for U.S. market share as will parts makers from these markets. In a survey of automotive industry participants held in January and February of 2011, 90 percent of the respondents believed that Chinese vehicle manufacturers would reach North American quality standards by 2021 while around half thought that they would reach that level by 2016. Without increases in market size, any market share these firms gain will come at the expense of current market participants, thereby driving future consolidation. The pressure for consolidation will be particularly acute for companies competing in commodity markets without technical advantages or intellectual property to provide them with pricing relief against their peers.