

DESIGN PATENTS AND AUTO REPLACEMENT PARTS

HEARING BEFORE THE COMMITTEE ON THE JUDICIARY HOUSE OF REPRESENTATIVES ONE HUNDRED ELEVENTH CONGRESS SECOND SESSION

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MARCH 22, 2010
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Serial No. 111-112
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Printed for the use of the Committee on the Judiciary



Available via the World Wide Web: <http://judiciary.house.gov>

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U.S. GOVERNMENT PRINTING OFFICE

55-596 PDF

WASHINGTON : 2010

For sale by the Superintendent of Documents, U.S. Government Printing Office
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DESIGN PATENTS AND AUTO REPLACEMENT PARTS

MONDAY, MARCH 22, 2010

HOUSE OF REPRESENTATIVES,
COMMITTEE ON THE JUDICIARY,
Washington, DC.

The Committee met, pursuant to notice, at 3:38 p.m., in room 2141, Rayburn House Office Building, the Honorable Zoe Lofgren, Chairwoman of the Subcommittee presiding.

Present: Representatives Scott, Watt, Lofgren, Jackson Lee, Waters, Delahunt, Gonzalez, Smith, Coble, Issa, and Chaffetz.

Staff Present: (Majority) Eric Garduno, Counsel; Diana Oo, Counsel; Christal Sheppard, Counsel; Reuben Goetzl, Staff Assistant; (Minority) Richard Hertling, Counsel; Blaine Merritt, Counsel; and Allison Halataei, Counsel.

Ms. LOFGREN. The Committee will come to order.

Welcome, everyone, to today's hearing on "Design Patents and Auto Replacement Parts."

Chairman Conyers is over with the Speaker and asked for me to begin in his absence and expects to be back soon. I understand from Mr. Coble that Mr. Smith is also on his way.

Mr. ISSA. He is here.

Ms. LOFGREN. Oh, is he? Oh, good. Well, then I will not say that. He will offer his statement in due course.

I would like to thank Chairman Conyers in absentia for scheduling this hearing. Intellectual property exists to create incentives for innovation. That is why it is in our Constitution. The Constitution grants monopolies for a limited time over the reproduction of creations in order to reward innovators for their risk-taking, creativity, and investment, and because we want to encourage others to do the same. These government-created exclusive rights are crucial to the legal framework that promotes innovation in our country.

However, they come with a cost, and we should not be blind to those costs. Any time government creates a monopoly over a particular product, consumers will pay more for that product, and further innovation based upon that product may be restrained.

Such costs are justified when the exclusive right promotes, in the words of the Constitution, "the progress of science and the useful arts." In other words, government should grant intellectual property rights when necessary to spur innovations that would not exist without them.

Today, we are here to discuss one specific type of intellectual property: design patents, as applied to replacement exterior car parts. I think this, personally, is a textbook case of how the cost of government-created monopolies can, in some instances, perhaps outweigh the benefits to society. Automakers, understandably, make large investments to develop new exterior designs. They do so because the design and style of their cars will have a big effect on sales. But automakers don't sell exterior parts through new car sales; they also sell replacement parts to repair a vehicle after an accident. These are crash parts.

And in the market for crash parts the automakers face competition from other suppliers. This results in significantly lower prices for consumers, both in the direct cost of repairs and the indirect costs that affect car insurance premiums.

Unfortunately, the creative enforcement of design patents may threaten this competition. Federal court decisions have cast doubt on the application of design patents in this market, but the International Trade Commission has gone the other way in a recent decision, enforcing these patents against some specific crash parts. And, as a result, automakers in this case was able to demand licensing agreements and royalties, and of course the costs go up.

One study found that independently supplied auto parts are already 34 percent to 83 percent less expensive than those sold by automakers. If competition is eliminated, these prices could rise even further. Without third-party suppliers, effective competition in the crash parts market is not possible, and no consumer will ever look at the price of replacement exterior parts in deciding whether to buy a new car. So the situation invites price gouging of consumers after they have no other option.

Now, I don't think these price increases are justifiable because automakers, who we value and want to prosper, do not need a monopoly over crash parts as an incentive for design innovations. Carmakers have a powerful profit motive to develop new designs that attract new car buyers. And this incentive, I believe, is far more important than the after market for crash parts, which will exist and has always existed even without a monopoly over crash parts.

It is for these reasons that I introduce the "Access to Repair Parts Act" to protect competition and consumers by clarifying that design patents may not be enforced against crash parts.

Now, I know that some who oppose this—and, certainly, the right to oppose is fundamental—have used words like "theft" and "piracy" to describe this actually rather modest legislation. But I think it is important to recall that not every conceivable application of intellectual property is a natural right. I have great respect for genuine innovation, but I think this disingenuous invocation of morality to justify what I think are far-fetched monopoly rights really does a disservice to legitimate intellectual property rights.

Now, I look forward to hearing the testimony of the witnesses gathered here today. The purpose of a hearing, of course, is to shed light on the bills and the issues before us. And if there are witnesses who think I have misunderstood this, I look forward to hearing from them. I am someone who is always willing to learn.

At this point, I would turn to the Ranking Member, Mr. Smith, for his opening statement.

Mr. SMITH. Thank you, Madam Chair.

Today, we revisit design protection to determine whether the Committee should amend existing law to help the after-parts automotive industry. In a 2008 Subcommittee hearing on design law, proponents of greater protection argued that current law provides insufficient help for innovators who want to prevent the misuse of their designs.

Chapter 16 of the Patent Act allows an inventor to earn a design patent for any new, original, and ornamental design for an article or manufacturer. However, the chief limitation on the patentability of designs is that they must be primarily ornamental in character. If a design is dictated by the performance of the article, then it is judged primarily functional and ineligible for protection.

Combined with the high cost of patenting, this reality explains why many inventors, including automobile companies, file for relatively few design patents. But auto manufacturers assert that automotive supplier lose upwards of \$12 billion annually to counterfeit products. And at least one prominent car company invests \$100 million or more in the design of each new car line. So it is understandable why car manufacturers want a higher return on their investments.

Not surprisingly, they have argued in the past that Congress should amend the Patent Act or the copyright design statute to provide them with greater protection. But the legislative process is like Newton's third law of motion: For every action, there is an equal and opposite reaction. Amending either the Copyright or Patent Act invites opposition from others who work in the automobile after-parts industry. Their plea has less to do with the nuances of intellectual property law and more to do with competition and consumer choice.

Independent garage owners fear that they will go out of business if copyright design laws extended to cover auto replacement parts or if the Patent Act is amended to provide more expansive protection to designs. In fact, the after-parts industry now argues that we can't afford to maintain the legislative status quo on patent designs. The auto manufacturers are filing for more and more design patents under current law, meaning the independent garages could lose a war of attrition. It is just a matter of time and lawsuits.

That is why Representative Lofgren has introduced H.R. 3059, the "Access to Parts Act." The bill doesn't prevent automakers from patenting designs on replacement parts, but it does prevent them from suing competitors who repair cars with cheaper parts. The Committee must therefore weigh these competing interests and the consequences of establishing the precedent of creating an exemption to design law that benefits the after-parts industry.

All of us understand the constitutional mandate to protect intellectual property rights so that those who fairly deserve to reap the benefits of their creative contributions may do so. At the same time, we must also ensure that our legislative efforts do not have an adverse impact on economic growth and consumer choice and savings. When we allow goods to be taken out of the marketplace and assign ownership rights to one individual or company, we

should examine the fairness of doing so and the impact it will have on the market.

Thank you, Madam Chair. And I will yield back.

Ms. LOFGREN. Thank you, Mr. Smith.

And other Members, without objection, will have their opening statements included in the record.

Oh, I am sorry. Ms. Waters actually did request to make a statement, and Mr. Issa has asked for the same.

So, Ms. Waters, you are recognized.

Ms. WATERS. Thank you very much, Madam Chairlady. I thank Chairman Conyers for organizing this hearing, and I thank you for sitting in for him in his absence.

This hearing today is being held to discuss design patents and auto replacement parts. Indeed, this issue is of great importance to many of our constituents, as it concerns the maintenance and repair of automobiles.

I am very anxious to hear from our panel of witnesses regarding the impact this legislation would have on consumers in the auto industry. In the weeks leading up to this hearing, I have received many letters from leading consumer advocacy groups who believe H.R. 3059, the "Access to Repair Parts Act," would promote competition and consumer choice.

In these economic times when so many people are struggling to find employment, the last thing they should have to contend with is costly auto repair bills. The car companies contend that these parts are their original design and that this legislation would violate their patent rights. Consequently, over the years, many of them have lobbied Congress in an effort to amend Federal copyright law to enable auto manufacturers to obtain protection for their designs for individual crash parts through a design registration scheme.

Moreover, the car companies are also concerned about the quality of replacement crash parts. They argue that permitting this intellectual property infringement also exposes consumers to significant safety performance or durability risk.

However, the Consumer Federation of America advocates for auto and highway safety will testify today that consumers pay the same price for automobile parts that some pay for high-speed computers and flat-screen televisions. So when many across the country rely on their cars for employment, I am concerned that some of our car companies may be taking advantage of consumers in its strict control over the distribution of its repair parts.

Therefore, Madam Chairwoman, I look forward to our witnesses' testimony and hope that we can take a closer look at this issue that greatly impacts the American public.

And I yield back the balance of my time.

Ms. LOFGREN. Thank you, Congresswoman Waters.

Congressman Issa?

Mr. ISSA. Thank you, Madam Chair.

It is always difficult in Congress to be lobbied by two sides and tell both sides that you see merit in their position and then chastise them for excess. Today, I believe that is an example.

The auto companies have repeatedly asked for more than what they could be entitled to and come to this Committee asking for

protection that we are not permitted to grant. Often, the argument is that replacement parts are inferior, dangerous and, thus, will in some way be unreasonably produced in a way that would endanger the public. And, yet, the request is of this Committee, a Committee that has no such jurisdiction. We have jurisdiction over monopolies, and we certainly have jurisdiction over patent, copyright, and the like.

Having said that, the parts industry, from which I came, would certainly pride itself on its design patents and its right to have an ornamental look added to the automobile be protected. Whether it is an aftermarket sunroof company, spoilers, air dams and the like, or even custom wheels, no company in the after market would give up its right to its trademark, its copyright, or its patents willingly.

So that brings me to a conundrum as the owner of 37 patents, some of which are design patents. How do we protect the inherent right of the manufacturer to have no confusion as to the original maker, the quality, and the predictability, while at the same time recognizing that there is a huge difference between parts, for example, that would make a Ford Mustang into a Shelby Cobra when, in fact, it is not, and simply a repair part for an inner wheel well, maybe even a fender that has become rusted or damaged?

I believe that this Committee lacks the jurisdiction to do it all by itself. I certainly believe that the Chairwoman, rightfully so, is trying to find the right answer, but I believe that we must carefully make sure that this Committee limits itself to the proper meaning of this intellectual property over which we have jurisdiction and then moves on to the competitive questions with the Committee of jurisdiction.

For that reason, I have not signed on in the past, nor presently, on this bill. But I do look forward to trying to get it right now and in future legislation. I look forward to the testimony of all of the witnesses because I believe there is a valid middle ground.

Since we are fortunate enough to have the right people here, I will again use the example that a Ford Mustang versus something that looks like a GT500 Shelby Cobra is not a small set of replacement parts but, in fact, a huge difference. I often go to the auctions and watch them also on TV in which the difference in the value of a 25-, 30-, 40-year-old automobile based on nuanced differences of whether it was a GTO or just another off-the-line car that had a few stickers put on it is significant. And those significant differences should be respected when they belong to the manufacturer.

So, with that, Madam Chair, I look forward to working together on finding the right balance, and yield back the balance of my time.

Ms. LOFGREN. Thank you, Congressman Issa.

And, without objection, other Members, unless they wish to give their opening statement, will be invited to submit them for the record. And we will turn now to the witnesses.

I am pleased to introduce, first, Mr. Jack Gillis. Mr. Gillis is the director of public affairs with the Consumer Federation of America. He is also the author of several books, including "The Car Book." He received his MBA from the George Washington University.

Second will be Mr. Damian Porcari, who is director of licensing and enforcement for Ford Global Technologies. He oversees enforce-

ment of Ford patents through licensing and litigation. He received his law degree from the University of Detroit Law School.

Third will be Mr. Robert Passmore, the senior director for the Property Casualty Insurers Association of America. He specializes in automobile claims but has worked on a wide variety of other claims issues. He is a member of the Society of Chartered Property Casualty Underwriters, having received this designation in 2002.

And, finally, we will welcome Mr. Perry Saidman, an expert in design patent law and principal of a boutique law firm specializing in design patents. He has authored many articles on design law, and he received his law degree from the George Washington University Law School.

Without objection, your written statements will be placed into the record, and we would ask that you limit your oral remarks to 5 minutes.

You will note we have a lighting system. The light will be green. When it turns yellow, it means that you have used up 4 minutes, and when it turns red, it means your 5 minutes have expired. We won't cut you off mid-sentence, but we do ask that you try and live within the 5 minutes so that we will have time for Members to ask questions.

And we will begin with you, Mr. Gillis. Will you please proceed?

**TESTIMONY OF JACK GILLIS, DIRECTOR OF PUBLIC AFFAIRS,
CONSUMER FEDERATION OF AMERICA**

Mr. GILLIS. Congresswoman Lofgren, Ranking Member Smith, Members of the Committee, I am here not only on behalf of the Consumer Federation of America but the Advocates for Highway and Auto Safety, the Center for Auto Safety, and Public Citizen. And we appreciate your invitation to appear today.

Consider any of the following experiences which happen every year to thousands of Americans: You back into a pole, someone in front of you stops suddenly, or you sideswipe your car in a cramped parking lot. Fortunately, few of these fender-benders result in injuries, but they often result in shocking repair bills.

Why are these repair bills so high? As Congresswoman Waters said, one reason is the parts that are needed to repair our cars. For example, Ford charges the same price for a fender as Dell charges for a computer and a flat-screen monitor. An unpainted door from Ford will cost the same as a Sears refrigerator. And yet, these are just part prices; costs can double with installation.

In fact, computers, refrigerators, and many other products are better today than ever before for one reason and one reason only: competition. In the early 1990's, the car companies came to you, they came to Congress, and asked for special design copyright protection on these replacement parts, and you emphatically said no. But, as you can see from this chart, that hasn't happened. There has been an enormous spike in the number of design patents which companies like Toyota and Ford have received on their crash parts.

Now, unless there is something special about a Ford fender for a 2009 Ford which wasn't true in 2002, then I think you will agree with me that this effort is not about some newfound design patents but, instead, a newfound business strategy. The question you need to ask is, why all of a sudden are these fenders patentable? This

is a business strategy and not a legitimate use of our very important patent laws.

What is particularly disturbing about these figures is that they are only selectively putting design patents on those parts where competition is available. The competition and parts that the car companies are trying to kill lowers prices, provides choice, and improves quality. In fact, many independent parts have lifetime warranties and are 34 to 83 percent less expensive than the car company parts.

If the automobile makers succeed in using design patents to eliminate competition for crash parts, it will not only result in higher crash repair costs for you and me and everyone else, but it will increase our insurance premiums. On the safety side, as Congresswoman Waters indicated, delaying or ignoring the replacement of a headlight, a side mirror, or a brake light simply because they are too expensive will cause serious safety problems for the consumers.

One of the most tragic ironies in the lack of competition is what I call the automakers' double whammy. Not only can the car companies charge whatever they want for the parts we need to fix our cars, but when they charge so much that the car is totaled, our only recourse is to go back to them and buy another one of their products.

I applaud you, Representative Lofgren, for introducing H.R. 3059. It is not often that Congress is presented with such an elegant solution to a problem. By providing a repair clause in the design patent law, Congress will be providing consumer choice and protecting an open and competitive market. Such a very narrow, practical exemption to the design patent law would not, and rightly should not, interfere with an automaker's right to prevent competing car companies from using their patented vehicle and part designs.

Nine European countries and Australia have enacted laws that specify that making the use of a matching exterior patented part is not an act of infringement. American consumers deserve no less.

So, the Consumer Federation of America, the Advocates for Highway and Auto Safety, the Center for Auto Safety, and Public Citizen believe the consumers need competitive crash parts. On behalf of these groups, I strongly urge Congress to adopt Congresswoman Lofgren's bill in order to ensure a competitive market with fairly priced alternatives to expensive car company brand parts.

I would like to thank you for the time before you, and be happy to answer questions later on.

[The prepared statement of Mr. Gillis follows:]

PREPARED STATEMENT OF JACK GILLIS

Statement of Jack Gillis, Director of Public Affairs,
Consumer Federation of America

On behalf of

The

Consumer Federation of America
Advocates for Auto and Highway Safety
Center for Auto Safety
And
Public Citizen

Before the House Judiciary Committee
Hearing on Patent Designs and Auto Replacement Parts

March 22, 2010

Chairman Conyers, Ranking Member Smith, and Members of the Committee, my name is Jack Gillis, and I am Director of Public Affairs for the Consumer Federation of America. In addition to the Consumer Federation of America, I also am testifying today on behalf of Advocates for Highway and Auto Safety, the Center for Auto Safety, and Public Citizen. We are grateful for your invitation to appear today on an issue of tremendous importance to millions of Americans – the maintenance and repair of automobiles.

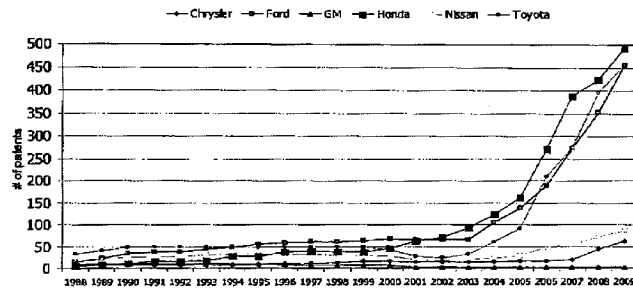
Consider any of the following experiences, which happen each year to thousands of Americans: You back into a pole at a shopping mall; someone in front of you stops suddenly and your bumpers collide, or you inadvertently sideswipe your car in a cramped parking lot. Fortunately, few of these “fender-benders” result in injuries, but they often result in shocking repair bills.

Why are these repair bills so high? One reason, the cost of the parts we need to get the needed repairs. For example, Ford charges the same price for a fender as Dell charges for a high speed computer and flat screen monitor. A simple grill for your car costs the same as a combination flat screen TV/DVD player. An unpainted door from Toyota costs the same as a Sears refrigerator. And, the refrigerator comes with two doors, already painted and installed. You'll have to pay someone \$565 to paint and install the door. General Motors charges the same price for a rubber bumper cover as Garmin charges for a full color GPS, programmed with directions and maps to anywhere in the United States. The fact is, computers, TVs, refrigerators, and GPS systems are cheaper and better today than five years ago and the reason is simple -- "competition".

In the early 1990s, the car companies came to Congress and asked for special design copyright protection on these replacement parts and Congress said no. Our concern today is that the car companies are now using design patents, not for the important and legitimate protection of the overall design of their vehicles, but to prevent competition when it comes to getting the parts we need to repair our vehicles.

Over the past several years, there has been an enormous spike in the number of design patents on crash parts, which companies like Honda, Toyota, and Ford have received on their external crash parts. (See chart below.) Historically, while car companies have understandably received design patents on the overall design of a car, only recently have they begun to get patents on the individual replacement crash parts.

Crash Parts Design Patents Granted



Note 1: The term "crash parts" includes bezels, bumper covers, dock lids, door shells, fenders, fascias, front/rear grilles, header panels, headlamps, high-mounted brake lights, hoods, pickup beds, pickup box sides, quarter panels, radiator supports, side markers, side moldings, tailgates, tailpipes, and wheel houses as defined by the Certified Automotive Parts Association at <http://www.capa-certified.org/what-is-it.asp>.

Note 2: Figures shown are based on the cumulative number of design patents granted through December 31, 2009.

In May of 2008, Ford filed a section 337 complaint at the International Trade Commission (ITC) against manufacturers and U.S. distributors of auto exterior repair parts on the 2005 Ford Mustang. This complaint followed on the heels of the previous section 337 complaint filed by Ford relating to the Ford F-150 which resulted in the effective elimination of a competitive choice for seven exterior Ford F-150 repair parts. As a result of a court settlement in April 2009, which ended legal actions on the Ford F-150 and Mustang, today the millions of F-150 and Mustang owners in the U.S. have limited alternative options for quality replacement collision parts. The settlement awarded one aftermarket competitor with a temporary, exclusive license to distribute aftermarket Ford parts. This comes at further detriment to the consumer,

who will shoulder the added cost of the royalty in the increased prices of parts. This settlement is limited and temporary in nature between one car company and one distributor leaving consumers open to whims and exploits of the car companies.

This type of design patent enforcement action that began with the F-150 emerged as a new business strategy for automakers. As automakers continue to ramp-up their design patents on crash parts, the possibility of many additional design patent enforcement actions being brought at the ITC (or federal courts) continues to be very real. The cost of defending such cases is enormous. Even defending just a small number of such cases could easily drive competitors out of business altogether, regardless of whether they ultimately were to win on the merits.

What is particularly disturbing about the action taken by the car companies is that they are only selectively putting design patents on those parts where competition, albeit limited, is available.

So What Does This Mean for Consumers?

For over 25 years, consumers have benefited from competition, albeit limited, between car company brand replacement parts and independently branded parts. Such competition, where it exists, lowers prices, provides choice, and improves quality. In fact, many independent brand parts have lifetime warranties, something the car company parts lack. Unfortunately, however, car companies still have an 80% market share, competitive suppliers have 15%, and the remaining 5% comes from recycled parts. Without congressional intervention this barely

competitive marketplace for collision repair parts will allow automakers to hijack design patent laws to capture the entire market. The victims? The thousands of Americans who experience low speed collisions each year.

It's no surprise the car companies don't want competition. Not only does the mere presence of competition reduce the price of car company brand replacement crash parts, but competitive replacement crash parts are typically 34% - 83%¹ less expensive.

Elimination of Competition will Increase the Cost of Repairs

Right now, the elimination of competition from independent brand crash repair parts would cost automobile owners more than \$1 billion a year.

The lack of competition for repair parts will seriously harm consumers. Already high accident repair costs will skyrocket. Right now, in low speed crash tests conducted by the highly respected Insurance Institute for Highway Safety, the cost of a simple 5 mph bump into a pole can cost thousands of dollars to fix. Why does it cost so much to repair these vehicles? Because the car companies have designed them to need lots of expensive parts after a low speed crash.

Eliminating Competition Will Increase Insurance Premiums for Consumers.

¹ Letter from the American Insurance Association, Automotive Aftermarket Industry Association, Automotive Body Parts Association, Coalition for Repair Equity, National Association of Mutual Insurance Companies, and the Property Casualty Insurers Association of America to Hon. Susan Schwab, U.S. Trade Representative (July 31, 2007). p. 3.

If the automakers succeed in using design patents to eliminate competition for crash parts, it will not only result in higher repair costs, but also higher auto insurance premiums. When collision repair crash parts cost more, insurers will have no choice but to pass those cost increases on to their policy holders in the form of higher rates. In addition, in the face of already rising insurance premiums, many consumers are opting for higher deductibles. That means that more of these exorbitant crash repair costs will be coming directly out of our pockets. This will have a disproportionate impact on low and fixed income consumers.

Eliminating Competition in Crash Parts Could Diminish Safety.

On the safety side, tragically, as the cost of needed repair parts rises, many consumers will be forced to forgo or delay needed repairs, leaving them with a vehicle that may not offer needed safety. Delaying or ignoring the replacement of a head light, side mirror, or brake light could have serious safety implications. Consumers with low incomes, seniors on fixed incomes and those consumers who pay for crash repairs out of their own pockets may not be able to afford needed repairs.

Eliminating Competition Will Result in More "Totals".

Higher repair costs due to less competition among the parts needed to repair our cars will force insurers to "total" more vehicles because the cost of repairing otherwise repairable vehicles no longer makes economic sense. Consumers lose when a vehicle is totaled. First of all, consumers who owe more on the car than it is worth will be left with debt payments for a loan on

a non-existent car. In addition, total losses not only hurt the body shop industry by providing fewer vehicles to repair, but a needlessly 'totaled' vehicle can harm the environment.

Eliminating Competition Protects the Automakers "Double Whammy".

The most tragic irony in the lack of competition is what I call the automakers "double whammy." Not only will the lack of competition allow car companies to charge whatever they want for the parts we need to fix our cars, but when they charge so much that the car is 'totaled,' our only recourse is to go back to them and buy another one of their products.

The bottom line: If automakers succeed in eliminating competition, the cost to the consumer would be profound.

Unless Congress addresses the automakers' use of design patents on their crash parts, the American public will be faced with mounting repair bills, more 'totaled' vehicles, increasing insurance costs, and deferring necessary repairs affecting safety.

Congress Can Preserve Consumer Access to Affordable, Competitive and Quality Crash Parts by Adopting a "Repair Clause" in the Design Patent Law.

I applaud Rep. Lofgren for her leadership through the introduction and promotion of HR3059. It is time for congressional leadership to keep the market open to competitively priced, high-quality alternatives to the expensive car company brand parts. Congress must enact an

automotive repair clause like found in HR3059. By providing a “repair clause” in the design Patent Law, Congress will be providing consumer choice and protecting an open and competitive market, while enabling the car companies to retain the design patent protection on the overall vehicle.

The solution to this increasingly unfair, unacceptable, and unnecessary mess is for Congress to adopt a “repair clause” in the design patent law that would preserve the consumer’s access to a competitive marketplace for quality alternative crash parts. Such a repair clause would establish a very narrow, practical exception to the design patent law so that if a car company does receive a design patent on a replacement part, independent companies could still make and distribute competing parts for the sole purpose of repairing the vehicle. Such a very narrow practical exception to the design patent law would not – and rightly should not – interfere with an automaker’s right to prevent competing car companies from using their patented vehicle and part designs.

Design does play an important role in consumers’ original choice of a car. However, after the purchase, consumers need the maximum number of repair choices possible. When we plunk down our hard earned dollars for a new car, we are doing just that, buying a car, not a lifetime indenture to the car company to buy their parts. It is simply not fair for consumers to be forced to pay monopolistic prices for needed crash repair parts.

Other markets have successfully addressed and solved this problem. Nine European countries and Australia have enacted laws that specify that the making and use of a matching

exterior auto part to repair an automobile is not an act of infringement, even though the original part is patented. In addition, this past December, the European Parliament approved a similar law that would apply to the entire European Union, and ratification by the Council of Ministers is expected in the first half of this year. American consumers deserve no less.

Consumer Federation of America, the Advocates for Highway and Auto Safety, the Center for Auto Safety, and Public Citizen believe that the competitive crash parts marketplace, which has evolved over the past couple of decades, has served consumers. On behalf of these groups, I strongly urge Congress to adopt a repair clause to the design patent law. American consumers will thank you for ensuring a competitive market resulting in high quality, fairly priced alternatives to expensive car company brand parts. Again, thank you for providing me the opportunity to discuss this important issue with you today.

Ms. LOFGREN. Thank you very much, Mr. Gillis.
We will turn to you, Mr. Passmore, for your testimony.

**TESTIMONY OF ROBERT C. PASSMORE, SENIOR DIRECTOR OF
PERSONAL LINES, PROPERTY CASUALTY INSURERS ASSO-
CIATION OF AMERICA**

Mr. PASSMORE. Congresswoman Lofgren, Ranking Member Smith, and other esteemed Members of the Committee, my name is Robert Passmore, and I am senior director of personal lines policy with the Property Casualty Insurers Association of America, otherwise known as PCI. PCI is comprised of more than 1,000 member companies, who, together, write 44 percent of the personal automobile insurance in the United States.

I would like to commend you for holding this important hearing and thank you for the opportunity to present our views on the impact of design patent enforcement on automotive collision repair parts and express our support of H.R. 3059, the "Access to Repair Parts Act."

At its core, this is a consumer issue. The cost of auto body repair are borne by consumers, either reflected in their insurance costs or directly when they pay for repairs themselves. Auto manufacturers justifiably use design patents to protect the overall design of their cars from the other car companies they compete with in the primary market. But some are also using them in unjustifiable ways: to keep competitors out of the market for replacement crash parts or parts commonly replaced following automobiles accidents, such as fenders and doors.

For decades, the availability of aftermarket crash parts has had a moderating effect on the price of such parts sold by the car companies. H.R. 3059 will help ensure that design patents will not be used in anticompetitive ways and high-quality aftermarket parts will remain available, helping keep auto repair and insurance costs down.

Since 2003, car companies have increasingly filed for design patents protecting not only the overall design of the vehicle but also individual component parts of the vehicles they manufacture. One company, Ford, has filed two cases at the International Trade Commission against companies in the aftermarket parts industry for allegedly infringing on design patents held by Ford for various exterior parts. Almost 5 years later, those cases were settled, but the desired result was achieved for Ford: There was no competition for those parts during that time. And, even though cases were settled, there is nothing that would prevent Ford or any other car company from doing the same thing today.

We recognize that the overall design of the vehicle represents a substantial investment in its development by the manufacturer that can and should be protected. While we claim no special expertise in patent law, I would point out that there is no room for innovation by alternative suppliers of these collision repair parts so as not to be accused of infringing on the car companies' design patents. Their only use is to restore the vehicles' original appearance and function; they have no other use.

In fact, many State laws require that alternatively supplied collision repair parts be of like kind and quality to car company parts. The aftermarket manufacturers must meet the requirements of those State laws, yet, by doing so, risk being found to have infringed on design patents.

Design patents, when applied to these parts in the after market, serve only to restrict or eliminate the competition and facilitate a monopoly on replacement parts. Indeed, nine European companies and Australia have addressed the situation by enacting laws similar to what is proposed here in H.R. 3059. Studies have shown that the mere existence of a competitive part in the marketplace reduces the price of a car company part by an average of 8 percent per part, and that is even before a single part is purchased.

To put the benefits of availability of these parts in perspective, consider that even now car company parts dominate the market for auto body repair parts, used more than 70 percent of the time—clearly a dominant position. Alternatively, supplied collision parts are used about 12 percent of the time and can cost as much as 60 percent less than a car company part.

PCI estimates that eliminating the competitive influence of even that small market share for alternatively supplied parts would result in more than \$3 billion in increased insurance costs on an annual basis. The effect of a monopoly on replacement crash parts would not be limited to consumers' auto insurance costs. Consumers that pay for their own repairs out of pocket would bear those costs directly or might choose to forgo repairs, leading to more rapid deterioration and depreciation of their vehicle.

High repair costs also means that there is an increased likelihood of a vehicle being declared a total loss, compelling consumers to replace the vehicle, pay off a loan that may exceed the value of the vehicle, and seek financing for the purchase of a replacement vehicle—all of which deplete savings. In tough economic times like we are currently experiencing, the impact of all these factors would be much greater on low-income or fixed-income consumers, who can least afford it.

We are not here today to advocate for the use of one type of part over another, but we are here in support of a measure that we believe would clearly benefit consumers. That is why we are part of the Quality Parts Coalition with companies like LKQ Corporation, based in Chicago; AutoZone, based in Nashville; Safelite, based in North Carolina; and ABRA, based in Minnesota. Those companies believe, as we do, at its core this is a consumer issue. Costs of auto body repair are borne by consumers, either reflected in their insurance costs or directly when they pay for repairs themselves.

We believe that the "Access to Repair Parts Act" will preserve competition in the market for replacement crash parts and benefit consumers. On behalf of our members, we applaud Representative Lofgren and all the bill's cosponsors for introducing this legislation, and we thank the Committee for the opportunity to share our views on this issue.

[The prepared statement of Mr. Passmore follows:]

PREPARED STATEMENT OF ROBERT C. PASSMORE

Testimony of the
Property Casualty Insurers Association of America
House Judiciary Committee
Hearing
“Design Patents and Auto Replacement Parts”

March 22, 2010

Introduction:

Chairman Conyers, Ranking Member Smith, and other esteemed members of the Committee, my name is Robert Passmore, and I am Senior Director of Personal Lines Policy with the Property Casualty Insurers Association of America (PCI). PCI is comprised of more than 1,000 member companies, who together write 44 percent of the automobile insurance in the United States representing more than \$84 billion in premium. I would like to commend you for holding this important hearing and thank you and your staff for this opportunity to present our views on the impact of design patent enforcement on automotive collision repair parts and express our support of HR 3059, the “Access to Repair Parts Act,” introduced by Congresswoman Lofgren and cosponsored by Congressman Boucher, Congressman Cohen, Congressman Delahunt, and Congresswoman Jackson-Lee, among others.¹

PCI strongly supports Congresswoman Lofgren’s legislation, and we commend her, and the other original sponsors, for leading the effort to ensure that 14-year design patents cannot be used to eliminate competition and consumer choice with respect to automotive collision repair parts. Recent design patent enforcement activity by one car company, and the recent, dramatic increase in the number of design patents on collision parts obtained by many of the major car companies makes this legislation and hearing particularly timely and critical.

To be clear, the collision repair parts to which I am referring are the cosmetic, exterior parts of an automobile that typically get damaged in an auto accident or fender bender. Examples include fenders, quarter panels, bumper covers, grilles, and other similar parts. Generally

¹ Senator Sheldon Whitehouse of Rhode Island has introduced identical legislation as well.

speaking, these are not structural or safety-related parts designed to be part of a vehicle's collision management system, like reinforcement bars or bumper brackets. In fact, the Insurance Institute for Highway Safety ("Institute"), through crash testing and crashworthiness evaluations, consistently has found that, generally speaking, cosmetic, exterior parts "serve no safety or structural function . . . [t]hey merely cover a car like a skin."² Moreover, the Institute has found that whether a cosmetic collision repair part is a car company part or an alternatively supplied part "is irrelevant to crashworthiness."³

All that said, it is the car companies' enforcement of design patents on cosmetic, exterior parts which brings us here today.

Background and Benefits of Competition in the Automotive Collision Repair Parts Market:

By way of background, for decades, consumers involved in car accidents or fender benders typically have had a competitive choice between a car company or an alternatively supplied collision repair part. As explained above, these are the cosmetic, exterior parts of an automobile that typically get damaged in an auto accident or fender bender.

It is worth noting that the car companies already have captured about 73 percent of the market for collision repair, while alternative suppliers only have about 12 percent.⁴ However, despite the alternative suppliers' relatively small market share, the competition and choice they provide consumers are still very important. That's because alternatively-supplied collision repair parts typically are 26% to 50% less expensive than the car company parts, and the mere existence of competition for a given part results in the car companies lowering their

²"Status Report," Insurance Institute for Highway Safety, Vol. 35, No. 2, Feb. 19, 2000. *See also*, Insurance Institute of Highway Safety, *Statement Before the Property-Casualty Insurance Committee of the National Conference of State Legislators*, "Institute Research on Cosmetic Crash Parts," July 7, 2005.

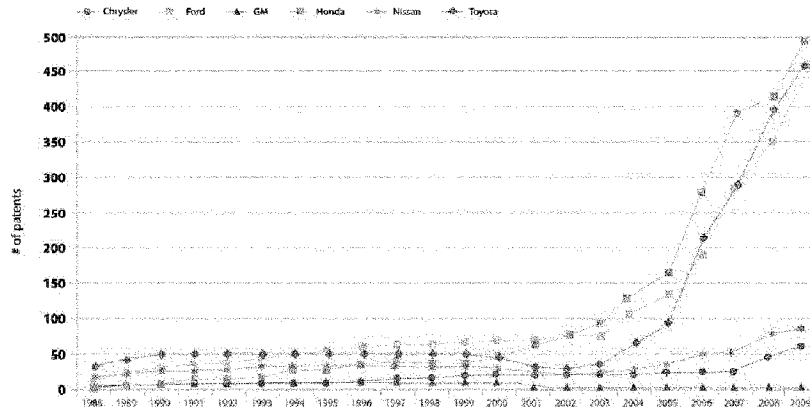
³*Id.*

⁴ Recycled parts comprise the remaining 15 percent of the market.

corresponding part's price by 8%.⁵ The estimated total benefit to consumers from the availability of competitive alternatives is approximately \$1.5 billion a year.⁶

Design Patents Are Being Used to Eliminate Competition and Consumer Choice:

Despite all of the demonstrated benefits of consumer choice and competition from alternative suppliers of collision repair parts, the car companies appear to have formulated a new business strategy to eliminate competition by obtaining and enforcing design patents on their collision parts against alternative suppliers of such collision repair parts. More specifically, around 2003 and 2004, many of the car companies began to dramatically increase the number of design patents they were obtaining on individual component collision parts of the automobiles they manufacture. Obtaining design patents on these individual parts is a significant departure from the car companies' past behavior, when they may have obtained design patents on the overall design of their cars, but did not place much, if any, emphasis on the component collision parts. Below is a chart on the cumulative number of crash part design patents owned by the major car companies.



⁵ Consumer Benefits from a Competitive Aftermarket for Crash Parts., R.W. Boulten, MiCRA Consulting & Research Associates, Inc., 2008.

⁶ *Id.*

The car companies have lobbied Congress for decades in an effort to amend federal copyright law to enable auto manufacturers to obtain protection of their designs for individual crash parts through a design registration scheme.⁷ Consumer groups and others oppose such efforts because of concerns about the anti-consumer effects on repair parts, and Congress has rebuffed the car companies' efforts in this regard.

Then, in December 2005, Ford Global Technologies (Ford) took the *unprecedented* action of filing a Section 337 case at the International Trade Commission (ITC) against companies in the alternative parts industry for allegedly infringing design patents held by Ford on various exterior parts for the Ford F-150 (model years 2004-2007). On December 4, 2006, the Administrative Law Judge held that seven of the design patents were valid and infringed and issued an exclusion order on those parts.⁸ The exclusion order went into place on August 6, 2007, banning the importation of those parts and, until a legal settlement was reached in April of 2009, competitive choice was effectively eliminated in the United States for those seven Ford F-150 exterior collision repair parts. Therefore, for almost 2 years, the car company was the one and only source for the purchase of these seven collision repair parts for their trucks.

I would point out that there is no room for innovation by alternative suppliers of these collision repair parts so as not to be accused of infringing on the car companies' design patents. Their purpose is only to restore the vehicle's original appearance and function. They have no other use. In fact, many state laws require that alternatively supplied collision repair parts be of "like kind and quality" in "fit, finish and performance" to car company parts. Consumers demand "must match" parts to restore their cars to their original appearance after an accident, but after Ford's unprecedented actions at the ITC, alternative suppliers are in the untenable position of complying with state law and consumer demand while, simultaneously, facing allegations of design patent infringement by the car companies. Design patents, when applied to these parts in

⁷ See, e.g., Hearings before the House Judiciary Subcommittee on Courts, Intellectual Property, and the Administration of Justice on H.R. 902, the "Industrial Innovation and Technology Act of 1987, H.R. 3017, the "Industrial Design Anti-Piracy Act of 1989, and H.R. 3499, the "Design Protection Act of 1989; Testimony of Greg P. Brown, Ford Global Technologies, before the Senate Finance Committee, March 13, 2008.

⁸ Lower bumper valance (2WD), lower bumper valance (4WD), side view mirror (LH/RH), honey comb grille, head lamp (LH/RH), tail lamp styleside (LH/RH), and tail lamp flareside (LH/RH).

the aftermarket, serve only to restrict or eliminate competition and facilitate a monopoly on replacement parts.

In addition, on May 2, 2008, Ford filed yet another Section 337 complaint at the ITC, alleging design patent infringement for eight parts for the Ford Mustang (model year 2005). Not insignificantly, the legal defense costs in both the F-150 and Mustang cases were enormous and mounting. While the ITC's decision in the Ford F-150 case was pending on appeal at the Federal Circuit, and the ITC ALJ hearings were about to commence in the Ford Mustang case, Ford reached a settlement with one alternative supplier.

While many of the settlement's details remain confidential, publicly available information suggests that the settlement is very limited in nature. It's only between Ford and one alternative parts distributor, and it only lasts until Sept. 2011. As such, nothing in the settlement prevents any of the other car companies from filing a complaint at the ITC today and continuing to eliminate competition. Nothing in the settlement prevents Ford from marching right back to the ITC as soon as the settlement expires in 2011 and continuing its effort to eliminate competition.

Moreover, the settlement reportedly requires the alternative supplier to now pay a royalty and licensing fee to Ford. And while the alternative parts are still less expensive than Ford parts, the royalty and licensing fee likely will result in increased repair costs for consumers.

Therefore, despite the temporary settlement between Ford and one alternative supplier, we cannot sit and simply cross our fingers that the car companies will simply ignore future opportunities to exploit their design patents and wipe out competition. Congress should act now, before it's too late.

The Effects of Eliminating Competition on Collision Repair Parts:

If competition is eliminated, PCI estimates that \$3 billion would be added to insurers' costs, which would be passed on to consumers in the form of higher insurance premiums.⁹ The effect of eliminating competition on collision repair parts would not be limited to consumers' auto insurance costs. Consumers that pay for their own repairs out of pocket would bear these costs directly, or might choose to forgo repairs, leading to more rapid deterioration and depreciation of their vehicles. Higher repair costs also means that there is an increased likelihood of a vehicle being declared a total loss, compelling consumers to replace the vehicle, pay off a loan that may exceed the value of the vehicle, and seek financing for the purchase of a replacement vehicle, all of which depletes savings. In tough economic times like these, these kinds of added costs hurt consumers that much more. The impact of all of these factors would be much greater on low income or fixed income consumers who can least afford it.

The Access to Repair Parts Act:

In June 29, 2009, Congresswoman Lofgren introduced the "Access to Repair Parts Act"¹⁰ in order to address the clear and present danger posed by car companies' use of design patents to eliminate competitive choice in the aftermarket for collision repair parts. Congresswoman Lofgren's approach, known as a "repair clause," is substantially similar to how Europe¹¹ and Australia have confronted identical intellectual property concerns regarding collision repair parts.

⁹ *Analysis of the Impact of Banning Aftermarket Parts*, Property and Casualty Insurers Association of America, January 19, 2010.

¹⁰ The "Access to Repair Parts Act" is substantially similar to legislation that Rep. Lofgren introduced in the 110th Congress, H.R. 5638. On June 29, 2010, Senator Sheldon Whitehouse (D-RI) introduced legislation identical to H.R. 3059.

¹¹ Nine European countries (Italy, Belgium, Hungary, Ireland, Latvia, the Netherlands, Poland, Spain, and the UK) have enacted laws which specify that the making and use of a matching exterior auto part to repair an automobile is not an act of infringement. In addition, on December 12, 2007, the European Parliament approved a similar law which would apply to the entire European Union, and ratification by the Council of Ministers presently is pending.

PCI believes the legislation provides a very limited exception to the design patent law, and that this exception would help ensure that alternative suppliers will be able to continue supplying consumers a choice of collision repair parts — when “the sole purpose of the ... part is for the repair...to restore its original appearance.” While protecting competition in the market for collision parts, this legislation would still permit car companies to obtain design patents on their collision parts and enforce them against other competing car companies to prevent them from copying one another’s vehicle designs in the primary market. Therefore, the incentive of the car companies to innovate will be preserved as they design their cars to compete against other car companies for sales.

We recognize that the design of a vehicle represents a substantial investment in its development by the manufacturer that can and should be protected. The design of the overall vehicle may play an important role in consumers’ original choice of such vehicle when it is purchased. PCI respects the investment made by the auto companies in intellectual property when designing their cars, but we join the consumer groups in believing that when a consumer buys a car for \$35,000 in the showroom, puts the title in his pocket, and drives it off the lot, he has compensated the auto company for his share of the intellectual property. American consumers should not be forced to pay a monopoly price on a part such as a fender or a quarter panel whenever it has been damaged in an accident and needs repair. Yet Americans will find themselves in this situation as car companies enforce their design patents on collision repair parts against competitive suppliers – unless Congress enacts the “Access to Repair Parts Act.”

The cost of car ownership already is significant, gas prices continue to fluctuate and Americans are increasingly dollar conscious. We believe it is in the public interest to ensure that U.S. patent law does not eliminate a place in the market for less-expensive, alternative collision repair parts. The “Access to Repair Part Act” does not mandate the use of alternative collision repair parts, nor does it have the government facilitating new entry in the marketplace. Rather, the legislation would simply preserve the traditional place in the market for competition in the sale of collision repair parts. Consumers have come to expect that competition, and they deserve it.

Conclusion:

We are not here today to advocate for the use of one type of part over another, but we are here in support of a measure that we believe would clearly benefit consumers. At its core, this is a consumer issue; the costs of auto body repair are borne by consumers, either reflected in their insurance costs, or directly when they pay for repairs themselves.

We believe that the "Access to Repair Parts Act" will preserve competition in the market for replacement "crash" parts and benefit consumers. We want to thank you again for holding this important hearing and thank Congresswoman Lofgren, and the other original sponsors, for their continued leadership on the "Access to Repair Parts Act."

Ms. LOFGREN. Thank you very much, Mr. Passmore.
Now we will turn to you, Mr. Porcari, for your testimony.

**TESTIMONY OF DAMIAN PORCARI, LICENSING AND
ENFORCEMENT, FORD GLOBAL TECHNOLOGIES, LLC**

Mr. PORCARI. Thank you.

Chairwoman Lofgren, Ranking Member Smith, and Members of the Committee, my name is Damian Porcari. I am an attorney with the Ford Global Technologies. I am responsible for obtaining Ford's design patents.

This legislation, if signed into law, would undo wins by Ford in the International Trade Commission against foreign manufacturers making copycat parts of our popular F-150 trucks. In these instances, the infringers purchased a single genuine Ford part and then they used low-cost laser scanners to make photocopy-like clones of our parts. And as a result of these infringements, Ford, our suppliers, our dealers are losing \$400 million a year because of the loss in genuine part sales.

Certainly, a company can save money by copying a design as opposed to creating, testing, marketing, and selling an original design. This is not a revelation. It has been and will always be cheaper to steal something than to pay for it. Our opponents' argument is no more than a justification to deny all intellectual property rights across the board.

Copycat parts hurt Ford, our employees, our suppliers, our dealers, and our customers. Ford customers rarely know that they are getting copycat parts because their installation is frequently concealed. Customers purchase a Ford vehicle for many reasons, including its features, its quality, its styling, and its value, but these factors are also important in a repair decision. But often, when customers take their cars to a body shop, they frequently receive non-Ford, non-U.S., non-UAW parts.

You know, they may be given an untested part, an experiment, that may or may not function as intended. Ford doesn't test how copycat parts work or what interaction various copycat parts have with each other. We test Ford vehicles with genuine Ford parts.

Copycat part makers talk of monopoly pricing by automakers if parts can't be freely copied. Yet, for over 100 years, Ford has prided itself on selling vehicles with readily accessible and affordable replacement parts. If pricing of genuine Ford parts made insurance unaffordable, we wouldn't sell any cars or trucks.

So, as a November 18, 2009, letter from a broad coalition of IP right supporters makes clear, we strongly oppose the fundamentally dishonest practice of purchasing a single Ford part and making cheap copycat parts in low-wage, foreign factories that are sold to the American public.

Technology transformed copying books in the 1970's, music in the 1990's, and movies this century. It is now transforming the car part market. Virtual 3D photocopiers are making it faster and cheaper to copy parts. That is why you are seeing a significant increase in the number of design patents filed in the U.S. It is in response to this increased copying of parts. If this bill becomes law, copying will continue to increase, and more and more American manufacturing jobs will be lost. Auto companies, suppliers, and dealers will have no choice but to compete with cheap Taiwanese copycat parts by outsourcing manufacturing to other even lower-cost countries.

The timing for this bill couldn't be worse. An International Trade Administration report, entitled "U.S. Automotive Parts Industry Annual Assessment 2009," outlines the problems facing the domestic auto parts industry and shows increasing imports of aftermarket parts from foreign countries. The Bureau of Labor Statistics reported that the automotive part industry lost more than 300,000 U.S. jobs since 2000.

Foreign part copiers say that car companies are unwilling to license copies. This is not true. Car companies vigorously compete with each other. We also compete with the salvage and specialty equipment makers on component parts. Beyond that, we have existing restoration part licensing programs, where we license our designs, know-how, and brands to responsible companies that make high-quality parts. Ford has no objection to generic or specialty repair parts.

Finally, Ford broke new ground and licensed LKQ to make and sell copy parts. We also required that LKQ clearly label copy parts as non-original equipment after market. We collect a fee for the use of our patents that we reinvest in new vehicle designs.

This settlement gives Ford customers up to five options when repairing their vehicle. They can: one, buy a new genuine Ford part; two, a salvaged genuine Ford part; three, an approved restoration part made to Ford specifications; or, four, a generic or specialty equipment part that is not a copy, such as parts made by SEMA; and, five, an LKQ copycat part that is not made to Ford's specifications.

This bill won't give consumers more choices; they already have five. This bill would merely eliminate compensation to the original American designer and spur more foreign copying.

In conclusion, we believe retroactively targeting one group of intellectual property rights for unequal treatment would be a dangerous precedent. And it would be particularly so should it come from this Committee, with the role to ensure that these rights are protected.

We thank Congress for taking on the difficult issue of design protection. Thank you, and I would be happy to answer any questions the Committee may have.

[The prepared statement of Mr. Porcari follows:]

PREPARED STATEMENT OF DAMIAN PORCARI

Chairman Conyers, Ranking Member Smith, and members of the Committee, my name is Damian Porcari. I am an attorney with Ford Global Technologies, LLC., a wholly owned subsidiary of Ford Motor Company. I am responsible for obtaining and enforcing Ford's design patents, especially those directed to exterior components such as fenders, hoods, grilles, lights, and mirrors.

This legislation, if signed into law, would undo wins by Ford with the International Trade Commission against foreign manufacturers making copycat F-150 parts. The infringers purchased a single genuine Ford part and used low-cost laser scanners to make 'photocopy-like' copycat parts. Ford hosted representatives of the U.S. Patent and Trademark Office in our design studios and demonstrated how infringers are able to make tooling for a copycat fender in a matter of hours using this equipment. Ford, our suppliers and our dealers are losing \$400 million per year in genuine part sales because of this flood of imported copycat parts.

I freely admit that a company can save money by copying a design as opposed to creating, testing, marketing, and selling an original design. This is not a revelation. It has been and will always be cheaper to steal something than to pay for it. This applies to all markets and all products. Our opponent's argument is no more than a justification to deny all intellectual property rights across the board.

Copycat parts hurt Ford, our employees, our suppliers, our dealers, and our customers. Ford customers rarely know that they are getting copycat parts because their use is frequently concealed. Customers purchase a Ford vehicle for many reasons, including its features, quality, styling, and value. They also buy a Ford because of its high domestic content (Monroney sticker) or because it was made by UAW workers. These factors are also important in repair decisions. But when this same customer takes his or her car to a body shop, they frequently receive non-Ford, non-U.S., non-UAW parts, all without any disclosure or warning. They take a Ford in for repair and given in return an untested experiment that may or may not function as intended. Ford doesn't test how copycat parts work or what interaction various copycat parts have with each other. We test Ford vehicles with genuine Ford parts.

Copycat parts makers talk of monopoly pricing by automakers if parts can't be freely copied. Yet there is no evidence for this argument. For over one hundred years, Ford has prided itself for selling vehicles with readily accessible and affordable replacement parts. If the pricing of genuine Ford parts made insurance unaffordable, we wouldn't sell any cars or trucks. Everyone purchases insurance **before** they drive their new car home. This argument is a smokescreen to divert attention away from the fundamentally dishonest practice of purchasing a single Ford part and making cheap copycat parts in low-wage foreign factories that are sold to an unknowing American public. Technology transformed the copying of books in the 70's, music in the 90's, and movies this century. It is now transforming the car parts market. Virtual 3-d photocopiers are making it faster and cheaper to clone parts. Ford's only recourse is to rely on an imperfect form of intellectual property protection- design patents- to stop the wholesale cloning of our vehicles. That's why you are seeing a significant increase in the number of design patents filed in the U.S. Patent and Trademark Office. It is a response to the increased copying of parts. If this bill becomes law, part copying will continue to increase and negatively further erode U.S. manufacturing jobs. Auto companies, suppliers, and dealers will compete with cheap Taiwanese copycat parts by outsourcing manufacturing to other even lower-cost countries.

This bill encompasses more than car parts. Any replaceable component would be free game for foreign copying including battery packs, printer cartridges, razor blades, tires, and golf clubs. All forms of intellectual property are aimed at preventing copies. There is no fundamental reason to treat a fender differently than a drug, a purse, or a movie. To do so otherwise is to devalue design. I explain this comparison by describing an accident. The vehicle's fender, brakes, and tires are damaged. The driver also breaks her sunglasses, a CD that was playing is scratched, some prescription drugs fall on the ground, and a \$100 bill blows away. Which of these articles should be freely available to foreign copyists and why? What fundamental principle supports treating a fender differently? The bill's proponents present no basis for treating visible repair parts differently than other repair parts or other items protected by intellectual property. The copyists want to eliminate design patent protection on copycat parts because that's what they make. As soon as their business model includes engines, brakes, and air bags, we will likely hear the call for the elimination of patent protection on all types of replacement parts. And it won't stop with cars. The denial of intellectual property rights will always reduce copiers' costs.

Proponents argue that this bill is needed to restore "balance" between car companies and customers. The phrase: "It's my car, I should be able to fix it" is used to suggest there should be a "fair use" right-to-repair. While the car indeed belongs to the owner, the patents protecting it do not. Patents have never needed a "fair use" concept because they involve commercial production of products. The patent teaches others how to make something. If a patent is unenforceable against foreign manufacturers, the American inventor is left with nothing. This entire repair argument is a smoke-screen. Car companies don't sue customers for pulling a dent from their fender. Razor companies don't sue customers for sharpening a dull blade. Customers have the right to repair their car or sharpen their razor, but they don't have the right to make copy fenders or copy razor blades. Far more importantly, foreign companies don't have the right to sell millions of copycat fenders or razor blades into this country. That's not "fair use", that's a large-scale foreign commercial enterprise stealing business from the American inventor through unethical copying. And that's exactly what's happening in the car business today. Dozens of foreign factories, employing thousands of workers are selling billions of dollars of copied car parts. Ford is working to stop this practice by enforcing its design patents. Rather than restore balance, this bill would upset long standing US intellectual property law and would tell the world it's OK to copy American products - both here and abroad. This issue is not one of allowing customers to repair their cars, they already

have that right. The issue is, can foreign manufacturers freely copy America's creations?

The timing for this bill couldn't be worse. An International Trade Administration report entitled "U.S. Automotive Parts Industry Annual Assessment 2009" outlines the problems facing the domestic auto parts industry and shows increasing imports of aftermarket parts from foreign countries (Attachment 1). The Bureau of Labor Statistics (BLS), U.S. Department of Labor, reported that the automotive parts industry lost more than 300,000 US jobs since 2000 (id at p35).

Some background about the insurance industry will illuminate what's really spurring foreign parts copiers and unscrupulous insurance companies. Ford provides insurance companies with its genuine Ford replacement part pricing for every new Ford vehicle. Insurance companies use genuine Ford part prices to set their insurance rates. After state regulators approve these rates, insurance companies then refuse to pay for genuine Ford parts and steer body shops to use cheap copycat parts. Most insurance companies don't tell drivers that they aren't getting genuine Ford parts unless they are required to do so by state law. Consumers rarely know they're getting copycat parts. What consumer prefers a copycat part over a genuine Ford part? This entire discussion about consumer choice and right-to-repair is merely a distraction from the basic unethical business practice of pricing insurance premiums using genuine Ford parts and then giving consumers cheap foreign copies.

Foreign parts copiers also argue the basic "unfairness" of giving car companies 14-year protection on replacement parts. Let's look at some basic fairness issues: Proponents want to retroactively *reduce* the period of design protection for car parts from 14 years to zero. However, Congress recently retroactively *extended* copyright protection for Hollywood movies to 120 years. If this bill becomes law, a real car would have no protection against copies, but a cartoon car would be protected for 120 years. Somehow all of these "fair use" and "consumer choice" arguments don't apply to saving American families money when it comes to movies.

Foreign parts copiers also suggest that Ford should be able to protect the entire vehicle, but not individual components. Ford protects what's copied. No one is making copy cars. Even Chinese car companies that were accused of copying didn't copy everything. They copied the front of one car and the rear of another. The current law allows car companies to protect individual parts and prevents this behavior. This bill doesn't address patentable subject matter under 35 USC 171, but instead focuses on what is an infringement. It will add confusion to an already unclear area of law. If Ford sells a vehicle having Goodyear tires, are Goodyear's patents now unenforceable? Can foreign companies freely make specialty equipment parts such as those on a Saleen Mustang###(tm)###? If a customer resells an automobile with specialty wheels, are those specialty wheel patents now unenforceable? If Ford sells a vehicle with specialty parts such as a Ford Expedition Funk Master Flex(tm), are those patents also unenforceable?

Proponents for this bill will tell you "a hood is a hood is a hood" and that the aftermarket is required to copy Ford parts by state insurance law. First, a hood is not a hood. If they were, why would foreign manufacturers be making exact copies rather than generic parts that fit Ford cars? Different hoods create a different visual impression and result in different sales for that vehicle. We sell different models of the same cars with different hoods, grilles, and lights to create a different visual impression and to garner more sales. Second, state insurance laws don't trump federal intellectual property laws. We don't allow states to create unique forms of intellectual property. And we don't allow states to invalidate federal intellectual property protection or mandate patent infringement.

Foreign parts copiers say that car companies are unwilling to compete. Not only do car companies vigorously compete with each other for each and every sale, we also compete with salvage and specialty equipment makers on component parts. Beyond that, each of the Detroit 3 have existing restoration part licensing programs where we license our designs, know-how, and brands to responsible companies that make high-quality parts. Ford has no objection to generic or specialty repair parts. Consumers are familiar with this concept and know what they're getting when they buy generic razors or cereal. Generic items don't look like the genuine article.

Ford broke new ground and licensed LKQ to make and sell copycat parts. We did this primarily to end a series of very expensive lawsuits and to gain recognition that automobile parts were patentable. We also required LKQ to clearly label copycat parts as "Non-Original Equipment Aftermarket". Attachment 2 is a sample label that is affixed to every copycat part to clearly distinguish them from genuine Ford parts. We also collect a fee for the use of our patents that we reinvest in new vehicle designs. This settlement gives Ford customers up to five options when repairing their vehicle. They can buy:

1. a new genuine Ford part
2. a salvaged genuine Ford part
3. an approved restoration part made to Ford specifications (for older vehicles)
4. a generic or specialty equipment part that is not a copy (e.g., SEMA(tm))
5. an LKQ copycat part not made to Ford specifications

This bill won't give consumers more choices. They have five already. This bill would merely eliminate compensation to the original American designer and spur more foreign copying.

In conclusion, we believe retroactively targeting one group of intellectual property rights for unequal protection would be a dangerous precedent. And it would be particularly so, should it come from the Committee with the role to ensure that these rights are protected. We thank the Congress for taking on the difficult issue of design protection. We encourage it to tackle this issue in-depth and see how intellectual property laws can be used to level the playing field with foreign companies making copycat parts.

Thank you and I would be happy to answer any questions that the Committee might have.

Attachment 1

ITA ANNUAL ASSESSMENT 2009

U.S. Automotive Parts Industry Annual Assessment



INTERNATIONAL
TRADE
ADMINISTRATION

Office of Transportation and Machinery
U.S. Department of Commerce
April 2009

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Executive Summary

Domestic Trends

The big story of 2008 was the continued economic struggle of an automotive industry hit hard by deepening economic recession, like so many industries. Automotive parts suppliers continued to experience heavy debt and overcapacity caused by production cuts by automakers, especially the Detroit 3 (Ford Motor Company, General Motors, and Chrysler). Suppliers have also been pressed by higher energy and input materials' costs. Industry analysts reported automotive companies that collectively accounted for more than \$72 billion in sales have filed for Chapter 11 protection between 2001- early 2008.¹ Over 40 suppliers filed for Chapter 11 protection in 2008. The number of bankruptcies in the automotive parts industry will continue to grow in 2009. Dana Corporation managed to exit bankruptcy in 2008, but Delphi, although it had hoped to exit Chapter 11 in 2008, continues to work on restructuring. Since it would have serious negative impacts on the financial viability of GM, GM raised the prospects that Delphi may be unable to procure adequate exit funding in GM's restructuring submission to Treasury.²

The Detroit 3 lost U.S. market share to U.S.-affiliates of foreign-based manufacturers and imports in 2008 and dropped below 50 percent market share. Most U.S. parts suppliers are dependent on the Detroit 3 whose purchases traditionally account for nearly 3 of every 4 of U.S. original equipment sales.³ U.S. suppliers also find difficult to enter transplant automakers' supply chains, in part because transplants have long-established relationships with home-market (foreign) suppliers and have had foreign suppliers collocate nearby their U.S. operations, or have already established long-term relationships with other U.S. suppliers.

International

U.S. automotive parts exports declined 7.2 percent to \$57 billion in 2008 compared to a record \$62 billion worth of automotive parts in 2007. Most of the exports (85 percent) went to Canada, Mexico, European Union 15⁴ (EU-15), and Japan in 2008. Automotive parts imports were \$90.6 billion in 2008, down 9.6 percent from a record high \$100 billion in 2007. Combined, Mexico, Canada, Japan, Germany, and China accounted for \$71.8 billion, or 79 percent of total U.S. imports of automotive parts. Imports from China grew to \$9 billion in 2008, up 4.8 percent from 2007. Nonetheless, the U.S. trade deficit in automotive parts decreased 13.4 percent from 2007 levels to \$33.1 billion in 2008.

Outlook

The entire automotive industry is suffering as a result of the global economic recession. As vehicle production and sales decrease, parts production and sales concurrently decrease because most parts are destined for new vehicle production. The value of

¹ KPMG, "Private Equity Tackles the Automotive Sector," April 2008.

² GM's Restructuring Plan, February 2009, p. 33.

³ GM's Restructuring Plan, February 2009, p. 43.

⁴ The selected European Union countries are Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, the United Kingdom, Austria, Finland, and Sweden.

automotive parts production will decline deeper than total vehicle sales because consumers also are shifting from high-content trucks and SUVs to lower-content passenger cars. Industry analysts suggest that suppliers need to run at least 80 percent capacity to make a profit but expect suppliers to be running at only 50-60 percent capacity in 2009. Therefore, further restructuring and downsizing of the North American auto parts industry will likely occur and the industry can expect more bankruptcies and job eliminations in the coming year.

Introduction

Automotive parts consumption is directly linked to the demand for new vehicles, since roughly 70 percent of U.S. automotive parts production is for Original Equipment (OE) products. The remaining 30 percent is for repair and specialty equipment (aftermarket). If vehicle production goes down, automotive parts production and sales follow. The year 2008 was another difficult year for the Detroit 3 (General Motors, Ford Motor Company and Chrysler), as the economy went into a recession and consumers reduced their spending on vehicles. On top of it, GM, Ford, and Chrysler continued to lose U.S. market share to other automakers, but even foreign transplant automakers had a difficult year due to the falling market. Suppliers caught between a rock and a hard place with high raw resource costs from their suppliers and price reduction demands from their customers faced added hardships of reduced orders as vehicle production was cut by automakers starting roughly in September 2008. Industry analysts suggest that suppliers need to run at least 80 percent capacity to make a profit but expect suppliers to be running at only 50-60 percent capacity in 2009.

The year 2009 will be another difficult year for the automotive industry. The impact of the recession and decreased automotive sales that began in late 2008 has vehicle makers making drastic cut-backs, job reductions, and restructuring. Chrysler and GM have requested billions from the Federal Government to stay afloat. The loss of one of these automakers could hurt the U.S. economy further and would be disastrous to automakers and the automotive supply chain. The supply chain is interwoven with many suppliers serving several automakers and OE suppliers. For example, over 51 percent of Ford's suppliers also supply GM. Automakers are further delaying payments to suppliers, while suppliers, struggling to meet their own financial obligations, are finding little help from the credit markets.

Industry analysts predict that the automotive market will not improve until 2010 or 2011. In the meantime, suppliers are going under with about 40 new automotive supplier bankruptcies reported in 2008.

Automotive Parts Sector Definitions

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 are broken into three levels. The first level is "Tier 1" suppliers who sell finished components directly to the vehicle manufacturer. The next level is "Tier 2" suppliers who sell parts and materials for the finished components to the Tier 1 suppliers. The third level is "Tier 3" suppliers who supply raw materials to any of the above suppliers or directly to vehicle assemblers. There is often overlap between the tiers. Original equipment production accounts for an estimated two-thirds to three-fourths of the total automotive parts production.

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

Overview of Industry Market Conditions

The U.S. auto industry is a key component of the nation's manufacturing base. In a typical year, it accounts for about 5 percent of GDP and 16 percent of all durable goods shipments. The automotive industry, including the automakers and automotive parts sectors, accounted for about 877,000 domestic employees in 2008, a decline of 11.8 percent from the 994,000 employed in 2007⁵, and accounted for 6.5 percent of all manufacturing employees. The Center for Automotive Research found that in 2004 the automotive parts sector directly employed 783,100 U.S. workers and indirectly contributed to 4.5 million jobs nationwide.⁶

Many automakers employ a business model that combines collaboration with its parts suppliers in a lean, flexible, just-in-time (JIT) assembly process. JIT is predicated upon short supply lines that deliver small batches of components to the assembly line steadily and without interruption (often hourly and sometimes synchronized to match a particular vehicle). JIT cuts inventory costs and because there is no built up inventory, JIT allows the firms to correct quality problems as they are discovered, and to make changes in product specifications or volume requirements when needed. Under this framework, buyers and sellers collaborate over time to drive costs down and share in the savings generated. This business model appears to successfully lower the automakers' input and assembly costs, improve product quality, and stimulate the development of new content.

While the Detroit 3 is working toward this more collaborative approach they continue to seek price concessions while asking their suppliers to take on more research, design and manufacturing responsibilities and to absorb the higher costs for their inputs. This situation puts pressure on the U.S. parts industry.

Pressure is further exacerbated by global competition in the parts industry. As Japanese, German, and Korean-based vehicle manufacturers gain increasingly larger shares of the U.S. market, they maintain relationships with their traditional supplier base. Many of those home market suppliers have been creating or expanding "transplant" capacity in the United States to meet their traditional automaker's production needs. At the same time those transplant suppliers are aggressively seeking business from the Detroit 3. In addition, suppliers in many lower cost markets are improving their quality and becoming capable of supplying even greater shares of U.S. demand from abroad. The Detroit 3

⁵ Bureau of Labor Statistics data using NAICS 3361, 3362, and 3363.
<http://data.bls.gov/PDO/outside.jsp?survey=ce>

⁶ *Contribution of the Motor Vehicle Supplier Sector to the Economies of the United States and its 50 States*, by Economics and Business Group, Center for Automotive Research, January 2007.
http://www.cargroup.org/documents/MEMA-Final2-08-07_000.pdf

have also advocated that U.S.-based suppliers move production to lower cost countries or risk losing future contracts.

To survive, many domestic parts manufacturers are adapting to these numerous challenges. Some suppliers are willingly taking on the new responsibilities offered to them by the automakers. Some are transforming 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 assume both product design and development responsibilities and down stream supply chain management functions previously undertaken by the automakers. Other suppliers are scrambling to add to their capabilities and product lines; building additional plants to satisfy JIT requirements and minimize inventory exposure, adopting global best manufacturing practices, investing in their own development of new technologies, or buying or merging with firms that can contribute new skills, complementary products, and new technologies.

Some firms, however, are choosing not to pursue this new role, consciously deciding to maintain their current business models. Many of these firms could eventually find themselves in an exceedingly competitive environment of highly cost sensitive, commodity products – particularly if they are unable to differentiate their offerings.

Due to shifting and then declining demand for vehicles, automakers have been dramatically cutting production. The impact upon suppliers when an automaker sharply curtails operations can be severe. It takes many months and significant resources to win business from vehicle assemblers or from the major “Tier 1” suppliers. Most U.S. suppliers are ill-situated to withstand major disruptions to their sales.

Dramatic growth in China and other Asian economies (i.e. India), has also led to increased costs for critical raw materials. Examples of some of the raw material price increases by July 2008 include plastic resins which increased 45 percent since January 2007, tires increased 20 percent since May 2008, oil for petrochemical feedstock increased 43 percent since early January 2008, and steel for frames and bumpers rose nearly 100 percent since December 2007.

As automakers and other manufacturing industries cut back worldwide, the demand for many raw materials has decreased leading to moderate price declines. Steel prices were high due to strained capacity and dramatic industrial growth in the developing world, but around June 2008 the bidding war eased and the prices started going down. The price of hot-dipped galvanized steel used in vehicle bodies, peaked at \$1,303 per ton in June 2008 and dropped 11.7 percent by October 2008, but still cost nearly twice as much as it did in January 2008.

The same dramatic growth was experienced in petroleum prices. The rise in petroleum prices led to increased energy costs and higher raw material costs for those companies producing petroleum based products (e.g., plastics). Higher raw material costs have pushed several companies into bankruptcy in the past few years. For example, Internet

Corp. filed for Chapter 11 protection in August 2008, citing declining sales and high commodity prices.

Financial pressures from raw material prices have been affecting ties between suppliers and automakers and between higher tier suppliers and their lower tier suppliers. Automakers are increasingly 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. Nonetheless, sometimes automakers and suppliers rely on the courts to enforce their price agreements. Dana Holding Corp., who recently emerged from Chapter 11, asked the courts to enforce an agreement with Chrysler to establish a "mutually rewarding supply agreement." Johnson Controls Inc. filed suit against three of its suppliers that threatened to withhold shipments if they were unable to raise prices to compensate for the cost of steel.

Economic Indicators

Total U.S. production of light vehicles was 8.4 million units in 2008, a decline of 19.2 percent from 2007. The record high production of light vehicles was in 1999 with 12.6 million units. It is expected that production will continue to decrease through 2009 because of the economic recession. The Detroit 3 are downsizing and attempting to manage product mix while keeping inventories in balance as part of their restructuring efforts. As production decreases in the United States and other developed countries, production in developing markets is still expected to grow, but not as much as previously predicted.

Historically, the automotive sector closely tracks general economic indicators, in part because the automotive sector is a major component of these indicators (Charts 1 and 2). The United States is officially in a recession. With the economy depressed, consumers and businesses are not purchasing vehicles. Likewise, suppliers and automakers are finding it difficult to secure the capital needed to purchase materials and finance sales.

Sales of vehicles have exceeded 16 million units for the last several years. Early 2008 industry forecasts predicted sales would fall below 16 million units to about 15.7 million units. The final number was 13.2 million units in 2008, much worse than forecasted. Ford reported \$14.6 billion in losses for 2008 and GM's losses were reported to be \$30.9 billion. Early forecasts for 2009 were that there will be no reprieve for the automakers with some forecasting as low as 10.5 million units in 2009. Based on poor January 2009 sales, Ward's Automotive Research lowered its forecast to below 10.5 million units for the year. Johnson Controls based its 2009 earnings guidance on vehicle production estimates of 9.3 million units in North America and 16.2 million units in Europe for 2009. Some automakers are hoping for a rebound in the second half of the year to reach 12 million units, but most industry analysts do not expect it to rebound until 2010 or even 2011.

In 2007, the dollar began declining against foreign currencies. The weakened dollar should result in more U.S. exports of automotive parts and could encourage foreign

suppliers to produce in the United States for domestic and international production. However, the weakened U.S. dollar, which dropped to parity with the Canadian dollar, especially hurts Canadian suppliers and will likely disrupt the network of Canadian suppliers to U.S. plants. The Detroit 3 buy nearly 90 percent of Canada's parts, with GM alone purchasing \$10 billion of Canadian auto parts a year. But with production cuts and the weakened U.S. dollar, the costs of Canadian auto parts exports to U.S. plants are increasing, potentially resulting in increased sales for U.S.-based parts suppliers and additional Canadian supplier bankruptcies.

Because the automotive industry is impacted by other economic sectors, economic conditions in other sectors will affect the automotive industry. Trends in the automotive parts industry follow the motor vehicle industry. However, there is a perception that in periods of downturn in the motor vehicle sector, lost OE automotive parts production and sales will be offset somewhat by aftermarket sales as demand for replacement parts for vehicles increases. This relationship is not always correct, as consumers will also tend to delay all but essential repairs during a recession. Additionally, the durability of parts has increased over time, resulting in less need to replace many normal wear parts. Therefore, declines in OE parts production and sales may no longer be substantially offset by increases in the demand for aftermarket parts.

According to the most recent Annual Survey of Manufacturers (with data through 2006), auto parts industry shipments of \$214 billion accounted for 4.3 percent of total U.S. manufacturing shipments (Tables 1 and 2). This is one of the highest shares of any single U.S. industrial sector. Industry employment in 2006 accounted for 4.8 percent of total manufacturing employment. The U.S. automotive parts industry was also one of the largest U.S. exporters, accounting for 4.4 percent of total U.S. goods exports in 2008 (Table 3).

The Original Equipment Suppliers Association (OESA) reported that the worldwide market for OE automotive parts decreased 7 percent from \$782 billion in 2005 to \$727 billion in 2006 (Table 4). The Asia Pacific region, Europe, and North America combined to account for roughly 95 percent of the global market for OE parts.

The Automotive Aftermarket Suppliers Association (AASA) data for 2007 had the global parts market at \$1.3 trillion with \$960.2 billion in OE parts and \$380.2 billion in aftermarket parts. The United States accounted for 27.5 percent of the global parts market with \$368.6 billion.

The global average value of parts per vehicle declined from \$12,304 in 2005 to \$10,991 in 2006 according to the Original Equipment Suppliers Association (OESA) (Table 4)⁷. OESA reported that this reflects a number of factors including greater global competition among parts suppliers, increased economies of scale, and cost cuts demanded by vehicle manufacturers.

⁷ "2007-2008 OESA Industry Review," J. D. Power and Associates and OESA, November 2007.

Production

U.S. parts production capacity greatly exceeds current utilization. Much of this is due to continued share losses of the Detroit 3 and the economic recession, but in part this is also because automakers encourage suppliers to be close to auto producing plants to improve “just-in-time” delivery of parts, quality control, and flexibility.

The Detroit 3 have been examining supplier park systems. The appeal of supplier parks is that they put parts suppliers in or next to assembly plants, significantly shortening the response time of suppliers, shortening lead time, saving money on shipping parts, and lessening the chance of disruptions. In August 2004, Ford established the first North American automotive supplier park in the Chicago area with 12 suppliers within half a mile of the assembly plant.

For suppliers that produce complex modules and those who are required to make ‘just-in-time’ delivery, there are potential benefits to being located in a supplier park. For other suppliers, however, it makes little sense to spend money on building a plant for just one customer to turn out parts that are easy to ship. Suppliers need to consider the costs and benefits of being part of a supplier park to service just one customer. There may be other disadvantages. In tight labor markets, suppliers would be competing for employees with the automaker, which pay higher wages. Moreover, if the plant fails to reach planned production levels, the venture results in over-capacity for suppliers at a time when many are struggling to keep existing capacity running.

Domestic Market

DesRosiers, an automotive consulting firm, reported that the U.S. market for OE and aftermarket automotive parts dropped 13.8 percent in 2008 to \$210 billion from \$243.7 billion in 2007 (Table 5, Charts 3 and 4).⁸ The amount of OE and aftermarket parts supplied from U.S. based suppliers dropped 15.5 percent to \$140.3 billion in 2008 from \$166.3 billion in 2007. U.S. based suppliers accounted for 66.8 percent of the U.S. parts market. Market share of U.S. based suppliers has been declining since 1998 when they accounted for 81 percent of the market.

Original Equipment (OE) Sector

The U.S. demand for OE parts, including heavy duty truck parts, was estimated to be \$139.4 billion in 2008⁹ (Table 5 and Charts 5, 6, 7). This is a decrease of 20.5 percent from the \$175.3 billion in 2007. The OE parts market also decreased 19.2 percent in Canada in 2008 to \$36.7 billion, but increased slightly (3.4 percent) in Mexico to \$35.9 billion. The North American OE parts market was down 17 percent from \$255.4 billion in 2007 to \$212 billion in 2008. Forecasts predict that U.S. OE parts demand will be around \$109 billion, down another 21.5 percent in 2009, but might see a slight increase in

⁸ “US Demand for OE and Aftermarket Parts,” Dennis DesRosiers email report, 3/19/2009.

⁹ “NA Outlook for Sales and Production and OE Parts Demand,” DesRosiers analysis email, 1/23/09.

2010. The total North American OE parts demand is predicted to be around \$164 billion in 2009, down 22.6 percent.

Globally, the top 100 OE suppliers recorded \$611.9 billion in sales in 2007, an increase of 19.9 percent from \$510.2 billion in sales they had in 2006 (Table 7, Charts 8 and 9). The top 10 global OE suppliers saw a 16.1 percent increase in sales to \$233.4 billion in 2007 up from their sales of \$200.8 billion in 2006. Robert Bosch GmbH had worldwide OE sales of \$36.2 billion. Delphi with \$22.3 billion, down 2 percent from 2006, fell further down the list to the fifth largest global OE supplier in 2007, overtaken by Bosch GmbH, Denso Corp., Magna International Inc., and Continental AG. Bosch passed Delphi in 2004 to become the world's largest supplier, measured by global sales. The number of U.S. suppliers in the top 10 fell from four in 2006 to three in 2007 (Delphi, Johnson Controls, and Lear) and all three have descended down the list. North American suppliers lost global market share, accounting for 24.3 percent of cumulative global revenue in 2007, down from 32.7 percent in 2006.

Profitable growth for the majority of suppliers dependent upon mature markets has stalled according to an analysis by PriceWaterhouseCoopers.¹⁰ The analysis also observed that suppliers "strategically entering emerging markets to improve both their cost position and diversify away from traditional customers have tended to generate above average operating income growth despite strong home market headwinds."

U.S. suppliers reliant on the Detroit 3 are falling behind Asian and European rivals. For example in *Automotive News'* annual Top 100 Global OE Suppliers, it was noted that the largest losers in global sales in 2007 compared to 2006 were U.S. suppliers, including Lear Corp., Johnson Controls Inc., Delphi Corp., and Eaton Corp.

Industry analysts reported that North American vehicle sales were down 16.2 percent and North American vehicle production was down 16.1 percent in 2008¹¹. Since production and sales were down essentially the same percentage, the production to sales ratio remained about 80.1 percent. OE parts should see comparable decreases. However analysts noted that OE sales were down even more because of a shift from higher-content value SUVs to lower-content value small passenger cars. North American OE parts demand in 2008 was down to lows not seen since 1993 (\$164 billion) in current dollars, or if the market demand is adjusted for inflation in constant dollars not seen since the 1950's.¹²

Industry analysts also reported that there were over 40 bankruptcies in the automotive parts industry in 2008. In addition to the challenges of high raw material costs and shifting or declining market demand, competition was also growing as foreign suppliers opened shop in North America. An estimated 800-1,000 suppliers from overseas built plants in North America in the past 20 years creating a mass global "localization" of the

¹⁰ PWC Automotive Institute's Analyst Note, PriceWaterhouseCoopers, 8/1/07.

¹¹ "NA Outlook for Sales and Production and OE Parts Demand," DesRosiers analysis email, 1/23/09.

¹² "NA Outlook for Sales and Production and OE Parts Demand," DesRosiers analysis email, 1/23/09.

supplier sector.¹³ Some foreign suppliers, especially European companies, that expanded businesses in North America, to supply their Detroit 3 customers, are also trying to move away from Detroit 3 business to Asian automakers. But Japanese suppliers are not immune either. Suppliers in North America all face competition, declining market share, higher material costs, and demanding customers, although the foreign suppliers face fewer legacy costs and so tend to operate more efficiently than their U.S. counterparts.

North American parts supplied by transplant suppliers in North America had increased from about 10 percent to over 30 percent between 1997-2007.¹⁴ According to Automotive News, in 2004, foreign-affiliated suppliers produced 33.1 percent of OE parts sold in North America, up from 27.5 percent in 2001 (Table 5, Charts 3 and 4).¹⁵ Foreign-affiliated suppliers made significant inroads into the U.S. market through acquisitions, sales to transplant automakers, and sales to the Detroit 3. Moreover, transplant vehicle production in the United States has grown significantly, from only 2.6 million light vehicles in 1999 to over 3.9 million light vehicles in 2006. During 2007, transplant vehicle production surpassed 4 million units. However, the economic recession and decline in vehicle production also hit the transplant automakers who produced only 3.6 million vehicles in 2008.

Volkswagen AG's plans to open a plant in Chattanooga, TN were bolstered by the number of German transplant parts suppliers in the area that already supply the MercedesBenz's assembly plant in Alabama and BMW's factory in South Carolina. These are also traditional VW suppliers, including Bosch GmbH, Continental AG, Benteler AG, ZF Friedrichshafen AG and Brose Group.

As noted, even the Detroit 3 are purchasing more foreign-based supplier components. For example, Siemens, a German supplier, which had no share of audio systems in North America in 2003, had grown to 25 percent share by 2005. Also, Denso Corp., the third largest supplier in the world, reported that its sales to the Detroit 3 were rising and that it represents about 40 percent of its total sales, while Toyota accounts for about another 40 percent of Denso's business in North America.¹⁶ In August 2008, Chrysler named Denso Corp. as its first "Supplier of Choice." This means Denso is the default supplier with whom other suppliers must compete to win contracts and Denso will not have to compete to keep current orders.

The effect of the foreign-based suppliers' increased production within the North American market is also affecting the North American content of vehicles. In fact, some Japanese vehicles, such as the Toyota Sienna had a 90 percent U.S. and Canadian component content, while traditional American vehicles, such as the Chevrolet Suburban,

¹³ "Size of the parts market in North America," DesRosiers analysis email, 1/19/2007.

¹⁴ "Size of the parts market in North America," DesRosiers analysis email, 1/19/2007.

¹⁵ Chappell, Lindsay. "Transplant Suppliers Surge in N.A.," Automotive News, November 28, 2005, pp. 1 and 35.

¹⁶ Denso is a member of the Toyota group with Toyota owning 22.9 percent of Denso. Denso expected double-digit growth between 2007-2012 in North America.

Ford Mustang and Jeep Grand Cherokee have only between 61-72 percent U.S. and Canadian content.

Aftermarket

There are two primary models used in determining the size of the aftermarket. The "Survey Cost Method" involves using the number of vehicles on the road for each model year and multiplying by a survey-derived estimate of service and repair dollars spent on vehicles by model year. This method is used by many industry analysts and consultants. Another model is the "Joint Industry Channel Forecasting Model" which uses an econometric model that incorporates census data, vehicles in operation by model year and vehicle type, survey derived estimates of maintenance and repair activity and current economic conditions. This method was developed in 2002 by DRI-WEFA as a joint project of Motor Equipment and Manufacturers Association (MEMA) and the Automotive Aftermarket Industry Association (AAIA). In 2007, AAIA, Automotive Aftermarket Suppliers Association (AASA)¹⁷, and the Specialty Equipment Market Association (SEMA) had Global Insight (formerly DRI-WEFA) update the model.¹⁸

Using the Survey Cost Method (Table 6), the size of the U.S. automotive aftermarket was \$188.6 billion in 2007. It was forecasted in August 2008 to reach \$193.8 billion in 2008, up 2.7 percent from 2007. Using the Joint Industry Channel Forecasting Model, the size of the U.S. automotive aftermarket in 2008 was forecasted to be \$190 billion, up 1.8 percent from \$186.7 billion in the previous year.¹⁹ However, these forecasts were made in August 2008 and may have been optimistic given the impact of the economic recession in last few months of 2008.

The automotive aftermarket sector does not encounter the same price and cost cut pressures from automakers that the OE supply chain faces, but the sector is still affected by the overall state of the economy. Factors influencing the health of the aftermarket sector industry include: the number of vehicles reaching prime aftermarket age (about 8 years); the cost of fuel; the amount of unperformed maintenance; and the ability to get or keep used cars in circulation. In 1996 there were a total of 198 million vehicles in operation in the United States. By 2007, that number had grown to over 241 and more vehicles "came of age" needing more repairs. The aftermarket is also experiencing a shift from Do-It-Yourself (DIY) to Do-It-For-Me (DIFM) consumers as vehicles become more complex and baby boomers age. The larger and older fleet reflects improved overall durability, and indicates a growing market for replacement aftermarket parts such as struts, exhaust systems, water pumps and alternators, as well as performance and styling products.

¹⁷ A part of MEMA.

¹⁸ AASA. "2008-2009 Automotive Aftermarket Status Report," pp. 39-41.

¹⁹ AASA. "2008-2009 Automotive Aftermarket Status Report," pp. 39-41.

The average vehicle age increased to 10.1 years for all cars and light trucks and 11.3 years for domestic cars in 2007.²⁰ In 2007, the percentage of cars 11 years old or older was 41.3 percent compared with 40.9 percent in 2006. For trucks the percentage was 29.5 percent in 2007, and 29.2 percent in 2006. This increased fleet age offers increased aftermarket sales which offsets to some degree the lower parts replacement rate due to increasing new vehicle quality and reliability. Other factors tend to counteract this effect.

Sustained periods of gas costing more than \$3 per gallon could result in uncertainty for the consumer, reduced miles driven, and prolonged periods of deferrals of automotive services. The fewer miles driven also reduces wear leading to less maintenance. The annual miles driven by motorists, 11,604 miles for cars in 2007, was down slightly from previous years. The U.S. Department of Transportation found Americans drove 53 billion miles less in 2008 than in 2007, in large part because of the gas prices. Although gas prices have dropped from the \$4 per gallon levels experienced in the summer of 2008, Americans continued to drive less miles on average.

Also, according to *Aftermarket Business*, many consumers no longer judge replacement/aftermarket parts on anything other than form, fit, and function, since quality parts can and do come from everywhere. No longer is the "made in America" mark considered an indication of better quality over parts from other countries. Moreover, other countries are producing quality parts at lower prices. This shift in acceptance of foreign parts has been fueled by China and India's successes in entering the American aftermarket.²¹

Aftermarket suppliers also need to be able to keep up with new technology. A challenge to the aftermarket is getting repair information so that independent dealers and shops can compete with OE dealers and shops. Some industry consultants speculated that rising gas prices could be an opportunity for aftermarket suppliers by preparing for fuel-efficient technologies, including hybrids and keeping vehicles maintained for better fuel efficiency.

A traditional bright spot in the automotive parts industry is the specialty equipment segment of the aftermarket (products that are not purchased out of necessity, but rather out of choice). This segment saw growth rates averaging nearly 8 percent annually for the 10 years leading up to 2008, while the total automotive aftermarket grew at an average rate of 4.1 percent, according to the Specialty Equipment Market Association.²² In 2007, retail sales for the segment were \$38.11 billion, an increase of 3.8 percent from 2006, and up 79.8 percent since 1998.²³ The specialty equipment market includes products used to modify the performance, appearance, and/or handling of vehicles. However, as consumers feel economic pinch they are likely to focus on necessary replacements over specialty equipment.

²⁰ Carley, Larry, "Aftermarket Hits \$295 Billion per Year," Automotive Aftermarket Products Expo, 10/31/07.

²¹ Ross, Saiva, "Staring Down Commoditization," *Aftermarket Business*, 12/05.

²² *SEMA NEWS*, June 2007, p. 47 and *SEMA News*, June 2008, p. 31.

²³ *SEMA NEWS*, June 2008, p. 32.

As hybrids become more popular, industry analysts predict growth in styling and accessory products (specialty equipment) that will make hybrids look, function and perform better. Analysts believe consumers will also want more environmentally friendly equipment. The key will be to provide a benefit without compromising fuel economy.

Remanufacturing

The remanufactured automotive parts industry is roughly an \$85-100 billion industry worldwide. Based on estimates by the U.S. Automotive Parts Remanufacturers Association (APRA), the value of remanufactured parts was about \$40 billion in the United States in 2008. Around 2,000-3,000 remanufactured automotive parts companies operate in the United States, including approximately 150 production engine remanufacturers, ranging from assembly line operations to very small companies with two or three employees.

The remanufacturing industry produces goods that are entirely or partially comprised of components recovered from end-of-life products. The process transforms these recovered components into "like-new" goods. This reuse of inputs yields important economic and environmental benefits. Remanufactured goods generally have the appearance, performance, and life expectancy of new goods. They often meet the same performance requirements as, and enjoy warranties similar or identical to, equivalent new goods. In short, remanufactured products are usually intended to be identical to and indistinguishable from those products manufactured entirely from raw materials, new parts or components.

Remanufacturing reduces 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 consumed, uses less energy and reduces harmful emissions when compared to manufacturing a new part. Remanufacturing saves on new raw material inputs and on energy use because recovered goods retain the energy and inputs from their original manufacture. For instance, remanufacturing of automotive alternators requires only 12 to 14 percent of the energy that it would normally take to manufacture a new alternator. These savings can result in lower product prices for consumers and higher margins for producers and retailers.

During most of 2000-2007, domestic demand for remanufactured automotive parts in the United States began to slow due to original equipment parts lasting longer and competition of low cost new parts imported primarily from China. However, the APRA believes (total data is not available) the U.S. remanufacturing industry grew somewhat in 2008 due to the drop in new vehicle sales and will continue to grow in 2009 because of even lower new vehicle sales in the United States. As the average age of the vehicle fleet in the United States increases, the demand for replacement parts, including remanufactured parts, should help the aftermarket industry.

U.S. parts remanufacturers are also increasing their presence overseas. Several have completed purchases of foreign remanufacturers, especially in the European Union. Cardone, based in Philadelphia and the largest privately owned parts remanufacturer in the world, recently acquired three Remy Automotive Europe plants in the United Kingdom. ArvinMeritor, headquartered in Troy, Michigan, purchased Belgian-based Trucktechnic, a remanufacturer of brakes and brake parts, in July, 2008. TRW Automotive, Livonia, Michigan, bought UK's Brake Engineering in 2008. Other U.S. companies are expanding their remanufacturing operations in not only the United Kingdom, but most regions of the world.

However, many countries limit trade in remanufactured products. Such barriers include outright trade bans, higher tariffs and fees, or stringent regulation, certification, and inspection requirements. Many of these barriers exist because countries associate remanufactured goods with used goods and waste. These barriers can also be an excuse to protect inefficient domestic firms. The U.S. government has been working with industry to address the barriers to trade in remanufacturing through our free trade agreement negotiations, the WTO Doha Round, and the 3Rs (Reduce, Reuse, Recycle) Initiative.

Employment Trends

In its January 2007 report, *Contribution of the Motor Vehicle Supplier Sector to the Economies of the United States and Its 50 States*, the Center for Automotive Research (CAR), found that automotive suppliers contribute to 4.5 million jobs nationwide and provide more jobs than any other sector in seven states- Michigan, Indiana, Kentucky, Missouri, Ohio, South Carolina and Tennessee. It was reported that automotive suppliers account for more jobs and provide more economic well-being to more Americans than any other manufacturing sector.

The Original Equipment Suppliers Association (OESA) estimates that there were 30,000 firms in the North American automotive supply chain in 1990, but just 10,000 in 2000 and 8,000 in 2004. In a few years their numbers may dwindle to no more than 5,000, each enjoying significantly higher sales volumes, but likely to require significantly fewer total employees.²⁴ OESA/RolandBerger forecasted an 11 percent decline in auto parts production worker employment between 2003 and 2010, caused primarily by increased productivity paired with slowing growth in U.S. output. The global economic slump is expected to hasten and expand these declines.

The Bureau of Labor Statistics (BLS), U.S. Department of Labor, reported that employment in the automotive parts industry was an estimated 604,700 jobs in 2008 (Table 10 and Chart 10). This is a decline of 10.1 percent from the 672,700 jobs in 2007. The last time the number of jobs increased in the automotive parts industry occurred in

²⁴ *An Odyssey of the Auto Industry*, presented before the SAE World Congress on March 8, 2004 and McCracken, Jeffery, "Battered Auto-Parts Makers Could Face More Pain," *Wall Street Journal*, 8/13/07, p. A3.

2000, when employment grew 0.3 percent to 920,300. However, employment fell sharply the following year to just 850,200 jobs.

USAToday.com released an interactive graphic demonstrating how the automotive industry impacts every state. The graphic reported 604,967 automotive parts jobs as of October 2008 with wages of \$32.5 billion. The number of automaker jobs was reported to be 190,038 with \$15.9 billion in wages.²⁵ Michigan, Indiana, and Ohio had the most automotive parts and automaker jobs.

CAR reported that auto parts employment could shrink to 500,000 by 2011 as roughly 40,000 auto supplier jobs are trimmed each year.²⁶ U.S. auto parts makers have cut more than four times as many manufacturing jobs as the automakers during the past six years and that trend is expected to continue. Many Japanese, German, and Korean suppliers have established manufacturing facilities in the United States that employ a large number of production workers. Still, for each employee added to these foreign transplants over the past 14 years, U.S. automotive companies have let go 6.1 employees.²⁷

The shift from U.S. suppliers to transplant suppliers was demonstrated in the decline of jobs in the automotive sector in Michigan, Indiana, and Ohio, while Alabama and Tennessee experienced an increase in automotive sector employment. Michigan experienced the loss of tens of thousands of jobs as a result of restructuring at GM, Ford, Delphi, Visteon, and other automotive companies and suppliers. Meanwhile, Alabama experienced gains in automotive production. Alabama produced 674,851 vehicles and accounted for 4.3 percent of the North American total in 2006, up from 479,465 units and 2.9 percent in 2005. Alabama is home to three transplant automakers.

Automotive parts suppliers often cut jobs to cut costs. In 2008 the job cuts were severe as automakers cut production and suppliers were forced to follow suit. Deeper cuts and plant closures are expected. According to the U.S. Department of Labor, in September 2008 the automotive industry cut 18,200 jobs, or about 11 percent of the 159,000 jobs lost countrywide in September.²⁸

Among the job cuts announced and enacted in 2008 were: Visteon cutting 2,800 jobs globally; Tenneco - 1,000 jobs globally and closing three plants; Federal Mogul Corp. - 4,000 jobs (8 percent of its workforce) globally; Dana Corp. - 3,000 jobs, including 600 salaried jobs, and selling its Toledo headquarters; Delphi Corp. - 2,500 jobs (25 percent) of its salaried workforce along with 5,000 (50 percent) of its hourly jobs; Lear - 200 jobs and closing several plants; Navistar - 250 salaried positions; BorgWarner - 220 salaried workers; Lapeer Metal Stamping - 400 jobs and closing four plants; Panasonic Automotive Systems shutting down its 500 employee car stereo plant; and American

²⁵ Thomassie, Juan, and Schmalz, Julie. "Auto Industry Touches Every State," sources: Bloomberg. The Center for Automotive Research. http://www.usatoday.com/money/autos/2008-12-04-auto-workers-by-state_N.htm

²⁶ McCracken, Jeffrey. "Battered Auto-Parts Makers Could Face More Pain," *Wall Street Journal*, 8/13/07, A3.

²⁷ "Import Brands Add As Detroit 3 Subtract," *Automotive News*, 11/26/07, p. 34.

²⁸ Sheppardson, David. "Auto Suppliers Fight to Survive," *Detroit News*, 10/6/08.

Axle & Manufacturing Holdings Inc. is cutting 350 salaried positions and 2,100 hourly workers agreed to early retirements and buyouts.²⁹

Less than 8 percent of the nation's private work force was unionized at the end of 2007. When public employees are added to the figure, 12.5 percent of all workers belong to unions, about half the amount there were 25 years ago. The United Auto Workers (UAW) had fewer than 500,000 members at the end of 2007, down from 1.5 million in 1979.³⁰ Part of this decline was due to greater productivity that allowed auto companies to build more cars with fewer people, but it also reflects reluctance on the part of blue-collar workers to join unions, especially in the new Southern auto transplants. Industry experts expect that union membership will decrease another 100,000 to less than 400,000 members in 2008-2009 because of early retirements, layoffs, buyouts and possible bankruptcies. Recent actions by the UAW agreeing to let some parts companies, such as Delphi and Visteon, hire new workers at a lower pay scale than current UAW members, may also have a negative impact on membership.

Suppliers are negotiating and re-negotiating contracts with unions (primarily the UAW) in efforts to cut back on health care, pension, and labor costs. UAW leaders realize that prospects of even maintaining current pay and benefit levels are dim because so many large suppliers are in Chapter 11. Thus, suppliers are able to lower wages and cut back or eliminate these costs. For example, Delphi and Visteon negotiated changes with the UAW in 2006 that would lower retirees' health care benefits and increase health care costs for current working UAW members. In early March 2009, Delphi eliminated health care for salaried retired workers, and the action has been upheld in court.

Late in 2007, GM, Ford, and Chrysler negotiated new contracts with the UAW, decreasing benefits for current and future employees and also lowering retiree benefits. Undoubtedly, when a union contract expires with a parts company in the future, each company will want a contract with similar concessions. On March 9, 2009, Ford UAW members approved additional changes to the 2007 contract. Similar changes were expected to be approved by GM and Chrysler UAW workers by March 31, but neither had concluded negotiations by March 31. The changes include fewer holidays, eliminating the jobs bank, and most importantly, changes to the Voluntary Employees Beneficiary Association (VEBA). Many of the U.S. parts companies are also expected to ask to change their UAW contracts to include many of these provisions.

Leading Industry Stories of 2008

Financial Situation of Suppliers

The big story of 2008 was the economic recession and the significant contraction of the automotive industry, resulting in only 8.4 million vehicles produced in the United States and 13.2 million vehicles sold. The reduction in production along with the weakened

²⁹ Barkholz, David, and Sherelkin, Robert. "Salaried Workers Face the Ax." *Automotive News*, 9/1/08, p. 3. Shepardson, David. "Auto Suppliers Fight to Survive." *Detroit News*, 10/6/08.

³⁰ The UAW has not released membership data for 2008.

economic position of parts suppliers hit with higher energy and steel costs, heavy debt, and overcapacity are putting suppliers in severe financial distress.

It was reported that there were over 40 bankruptcies among major automotive suppliers in 2008.³¹ Many of these were liquidations indicating the extremely high level of industry distress. The first major bankruptcy filing of 2008 was Plastech, the largest minority-owned auto supplier, which after attempts to prop it up by the automakers was sold largely to Johnson Controls. Other major bankruptcies in 2008 included Blue Water Automotive Systems (Feb.), BHM Technologies (May), Progressive Moulded Products (June), Intermet (Aug.), Cadence Innovation (Aug.), Getrag Transmission Manufacturing (Nov.), and Key Plastics (Dec.). In February 2009, Contech LLC filed for Chapter 11 bankruptcy protection.

Delphi entered its third year trying to exit from Chapter 11 protection. Since it would have serious negative financial impacts on GM, GM noted in its February 2009 viability submission to Treasury that Delphi may be unable to procure adequate exit funding due to the credit crunch.³² Whatever the case, Delphi's emergence from Chapter 11 has been pushed back to mid-2009. Meanwhile, Dana Corp, which filed Chapter 11 in 2006, was able to emerge from bankruptcy in February 2008 and Dura Automotive Systems Inc. also was able to emerge from Chapter 11 in June 2008 after 20 months. In October, Dura announced that it was restructuring into four business units after winning about \$1 billion in new contracts since its emergence.

The credit crunch has forestalled recovery for many suppliers. FTI Consulting, a New York-based firm involved in the bankruptcy proceedings at Delphi and Tower Automotive Inc., reported that the slowing of the debt market would hasten the pace of automotive supplier liquidations, bankruptcies, and consolidations. "The caution that's currently being experienced in the credit markets increases the likelihood that some suppliers will be unable to restructure due to their inability to raise some additional financing or refinance their existing debt," said Randall Eisenberg, senior managing director with FTI.³³ Before suppliers can exit bankruptcy they have to have sufficient cash to operate. The high costs of exit financing could force bankrupt companies to remain under Chapter 11 protection longer than anticipated, while racking up legal fees and reorganization expenses, which can be as much as \$10 million per month. As stated, the price will likely be increased liquidations.

One source for the exit financing is private equity ownership. A.T. Kearney forecasted that private equity ownership of North America's top suppliers would grow to 36 percent by 2010, up from 25 percent in 2007.³⁴ However, even these private equity firms face increased difficulty obtaining capital in the current credit environment.

³¹ Shepardson, David. "Auto Suppliers Ask for U.S. Help," *Detroit News*, 2/6/09, citing a report to U.S. Department of Treasury by Ducker Worldwide LLC.

³² GM's February viability submission to Treasury, p. 33.

³³ McCracken, Jeffrey. "Battered Auto-Parts Makers could face more pain," *Wall Street Journal*, 8/13/07.

³⁴ Amend, James M., "Private Equity to Ride Shotgun for Foreseeable Future," *Ward's Automotive Reports*, 8/13/07, p. 1.

The industry has seen private equity investors giving up on suppliers in 2008 because of the ongoing production cuts. Carl Icahn who once attempted to take control of Lear, offering \$37.25 a share, sold 8.5 million shares at \$1.90 each to realize a capital loss before the year end. Industry consultants suggested that private equity owners 'would give up the ghost' faster than a strategic owner because they don't have the connection to a company that a traditional entrepreneur does to keep it going.³⁵

One private equity venture, International Automotive Components Group, appears to be headed away from the restructuring phase and into the growth phase. It bought a supplier from another firm that had completed reorganization and acquired a group of suppliers to form a nucleus to grow its supplier business. The consolidation of several suppliers provides the new business with scale, and can provide complementary technologies giving the new supplier an edge.³⁶ Private equity investor, Wilbur Ross, a leader in automotive acquisitions purchased Lear Corp.'s interiors business and some of Collins & Aikman assets which he combined into the International Automotive Group. International Automotive Group had an estimated \$4 billion in North American sales in 2007, ranking it among the top 20 largest suppliers of original equipment parts in North America.

Nonetheless, the industry is generally facing challenging times. A number of North American suppliers had their credit ratings placed on CreditWatch by Standard & Poor's (S&P) Ratings Services. Because of their significant exposure to the Detroit 3, S&P singled out ArvinMeritor Inc., BorgWarner Inc., Cooper-Standard Automotive Inc., Federal-Mogul Corp., Goodyear Tire & Rubber Co., Hayes Lemmerz International Inc., Johnson Controls Inc., Lear Corp., Metokote Corp., Shiloh Industries Inc., Stoneridge Inc., Tenneco Inc., and Visteon Corp. S&P also cut its ratings to junk status on Visteon Corp., American Axle Manufacturing & Holdings Inc., and ArvinMeritor because of declining auto demand and production.

Likewise, at the end of the first quarter of its 2009 financial year ending in December 2008, Johnson Controls posted its first quarterly loss in 16 years and withdrew its profit outlook for 2009 because of the "rapid decline in global automotive production and uncertain industry conditions." Johnson Controls had to defend itself against lower tier suppliers wanting to raise prices to compensate for high input costs earlier in 2008. In June, Johnson Controls sued three suppliers who threatened to withhold shipments if they were unable to get price relief.

Delphi Saga Continues

Delphi's Chapter 11 bankruptcy protection entered its third year in 2008. Delphi was the 13th largest company to file for bankruptcy protection in U.S. history. Delphi

³⁵ Shrefkin, Robert. "Private Equity, Falling Volume Put Small Suppliers at Risk," *Automotive News*, 12/29/08, p. 12D.

³⁶ Amend, James M. "Private Equity to Ride Shotgun for Foreseeable Future," *Ward's Automotive Reports*, 8/13/07.

Corporation lost \$3.1 billion in 2007, compared to \$5.5 billion in 2006. About \$3 billion of the 2006 loss was related to the buyouts of about 20,000 workers. Delphi's global OE sales were \$22.3 billion in 2007, down from \$22.7 billion in 2006. Delphi expected the losses to continue until it can address its high U.S. cost structure and complete its restructuring. Delphi talked with GM, the UAW union and investors about cuts and plant closures needed to emerge from bankruptcy. A plan for a group of investors, including Appaloosa Management LP, Cerberus Capital Management LP, and their partners, to invest up to \$3.4 billion in Delphi for a 70 percent ownership stake, fell apart when Cerberus turned its attention to and bought Chrysler from DaimlerChrysler. An investment group led by Appaloosa Management LP picked up the reins to back a \$2.55 billion equity plan to support the reorganization and Delphi hoped to close a deal for \$6.1 billion in financing to exit from Chapter 11 in April 2008.

Days before Delphi was to exit, Appaloosa Management LP raised concerns about the terms GM got for increasing its support and whether GM would have too much influence over Delphi. Then Appaloosa Management announced that it had terminated its planned equity investment, causing Delphi to flounder longer in Chapter 11 protection. Delphi took Appaloosa to court for breach of contract and fraud in an attempt to force the \$2.55 billion investment plan.

GM has booked \$11 billion in expenses connected to Delphi and could take on more financial responsibility at a time when GM is facing its own financial troubles. GM continued to lend Delphi money to help the supplier emerge from bankruptcy, lending Delphi nearly \$1 billion over the years, taking back employees, and taking over portions of pension funds. A plan in October 2008 rested largely on GM's agreement to provide a total of \$10.6 billion in support of Delphi's reorganization. In early 2009, there were talks of GM taking back about 6 plants, leaving Delphi with no more than 8 U.S. plants by the end of 2009. Wall Street analysts also suggested the possibility that Delphi may end up being liquidated. GM's concern about Delphi's ability to secure exit financing underlines those liquidation concerns. Delphi was granted approval of its Debtor-In-Possession (DIP) Accommodation Agreement that gives Delphi the authority to continue to use proceeds of its DIP Credit Facility through June 30, 2009. Delphi sought permission to cancel retiree health benefits and end post-retirement basic life insurance benefits, a move that would allow Delphi to reduce its liabilities by \$1.1 billion.

Delphi had 166 plants worldwide in 2002, including 45 in the United States and Canada, and employed 185,200 people worldwide, including 147,900 hourly workers. Seventy-five percent of the hourly workers were union represented, including 25,200 by the UAW in the United States. About half of Delphi's business was with GM, which purchased \$14 billion worth of parts from Delphi in 2004. In Europe, however, GM only accounted for 18 percent of Delphi European revenues. In 2007, GM accounted for 37 percent of Delphi's \$22.3 billion in sales. Delphi still produced about \$1,562 in parts per GM vehicle in 2007, down from \$1,695, and has been hurt by GM's production cuts.

Strike at American Axle and Manufacturing Holdings Inc.

The UAW completed successful contracts with struggling suppliers, including Delphi and Dana during their bankruptcy reorganizations, conceding to cuts to help the suppliers. But when American Axle and Manufacturing Holdings Inc. demanded similar cuts, the UAW balked. The UAW had already given American Axle buyouts and buy-downs to save American Axle's annual earnings in 2007 and the UAW felt it had been pushed far enough. The UAW argued that American Axle was not a distressed supplier that needed cuts. American Axle had been profitable nearly every quarter since Dauch bought the operation from GM in 1994 and it generated considerable cash.

On the other side, American Axle saw competitors like Dana getting concessions from the UAW. American Axle was paying "all-in" wage rates (including wages, health care, and retirement benefits) of \$73.48, while competitors paid about \$30. American Axle wanted to lower it to roughly \$27 an hour, which is similar to what its competitor Dana received. American Axle declared that it would not be forced into bankruptcy to reach a market-competitive cost structure in the United States.

There has been increased competition in axle production recently. Chrysler LLC will spend \$700 million on an axle plant in Marysville, Michigan; Ford is holding onto its axle plant in Detroit; Dana Holding Corp. invested in a new research and development center even while it struggled in Chapter 11; and Magna International Inc. and Linamar Corp. are using acquisitions to expand their driveline offerings. With all of these new competitors entering the field, American Axle will struggle to compete against them.

American Axle and the UAW were at an impasse and the UAW decided to go on strike in February 2008. About 3,600 UAW workers went on strike at four American Axle plants, forcing closures and cutbacks at GM, shutting down all or part of 29 plants and affecting more than 37,000 hourly workers. However, the strike had little impact on GM sales because inventories were high and at this time the truck market was weak and weakening. Had the truck demand remained high, there might have been more concern.

The strike lasted for months with both sides giving little. GM was weathering the storm, Tier 1 suppliers were beginning to feel a pinch and small suppliers were at risk because of GM production cutbacks due to the strike. There was pressure to draw GM into the negotiations or apply pressure on one side or the other. In May 2008, GM offered American Axle \$215 million to help its buyout and buydown offers for its workers, mitigating cuts in pay and benefits that American Axle sought and helping gain approval of UAW for a new contract.

American Axle could cut its hourly labor costs by \$32 per worker, bringing the all-in labor cost to the low \$40 range and it will result in up to \$185 million in annual cost savings. American Axle expected to cut 2,000 UAW workers through buyouts, buydowns and early retirement packages.

The 81-day strike cost American Axle \$370 million in 2008 sales. Despite the contract, because American Axle is so dependent on GM, S&P downgraded American Axle to B+ because of the deteriorating truck market, which accounted for most of American Axle's sales.

American Axle announced that it planned to slash its U.S. investment and pursue growth overseas. It planned to spend \$73 million on its U.S. operations to support new products and contracts in 2008, but only \$30.3 million in 2009. In contrast, it would invest internationally about \$162.3 million in 2008 and \$189.7 million in 2009 in an effort to catch up with rivals overseas.

Mergers and Acquisitions

The market forces driving bankruptcies are the same ones driving mergers and acquisitions. After a surge of mergers and acquisitions (M&A) in the automotive industry in 2007 with 604 automotive deals and a disclosed value of \$57.1 billion, M&A activity in 2008 was greatly reduced both in terms of number and dollar value. In the first half 2008 there were 289 deals worth \$13.2 billion, compared with 333 deals worth \$19 billion in the first half of 2007.³⁷ The decline is largely because of the credit market crunch. The inexpensive and widely available credit of 2007 was no longer available in 2008. This led to a slowdown of private equity activity pursuing automotive opportunities.

It has been over a decade since the Detroit 3 shed most of their "captive" parts suppliers as part of their continuing struggle to reduce costs. A collection of firms spun off by GM became Delphi in 1999. Ford formed Visteon in the same way and for the same reasons in 2000. Ever increasing competition, changing business models, and industry productivity gains progressively added to pressure for consolidation. Some industry analysts estimated that up to 90 percent of U.S. parts suppliers were acquired, merged, or left the business during the 1990s.

The extreme competition likely led to price deflation in the OE supplier market as vehicle manufacturers used the increased leverage to demand further cuts. Yet, despite the price pressure -- in a sign of the continued industry consolidation -- the top 150 North American suppliers increased their total sales by roughly 17 percent from 2001 to 2006. This pressure from vehicle manufacturers will continue in the near future. Both GM and Chrysler noted significant ongoing expected cost contributions from their suppliers in their February 2009 viability plans submitted to Treasury. Chrysler highlights \$75 million of expected supplier concessions each year through 2012.³⁸

Eventually every automaker may deal with no more than 300 to 350 Tier 1 firms, a considerable reduction from the 1970's, when automakers' direct supplier lists numbered several thousand. The Detroit 3 have pushed this type of consolidation. GM, Ford, and Chrysler looked to reduce the complexity of their supply systems. This activity spawned

³⁷ PriceWaterhouseCoopers Automotive Institute. "Automotive M&A Insights," *Analyst Note*, 6/18/08.

³⁸ Chrysler submission to Treasury, p.149.

an active business in mergers and acquisitions. Between 1995 and 2001, the industry's 23 largest publicly traded suppliers' consolidated industry sales rose from \$62 billion to \$112 billion.

The Detroit 3 claim they have been trying to improve their relations with their suppliers somewhat along the lines of their Japanese-based competitors. Honda and Toyota are known for working closely with their suppliers to maintain their financial health. Bo Andersson, purchasing chief of GM said that GM spent less money dealing with distressed suppliers in 2007 than in 2006. "We are much more proactive, and we are getting better and dealing with it. We try to assist suppliers before it's too late," he said.³⁹ Despite falling Detroit 3 market share in the U.S. market and continued price pressure on U.S. suppliers, 14 U.S. suppliers ranked among the world's top 50 global suppliers in 2007 with \$130 billion in global sales.

Continued price pressure from both Tier 1s and automakers is driving ongoing consolidation at the Tier 2 and Tier 3 levels. Indeed, smaller suppliers continue to face the largest shakeout. This is primarily because they are much more likely to be relying on single contracts or multiple contracts from only one of the Tier 1s or automakers. Thus, they are much more exposed to cancellation of product lines or reduced sales. They are also more prone to bankruptcy than the larger Tier 1s because they have less leverage with their bankers. While smaller companies will often be turned down by their bankers when they exceed their credit lines, larger companies can potentially "owe too much to fail."

A 2008 survey of 200 senior level executives in the automotive sector by KPMG LLC revealed that most felt volatility and unpredictability would remain high as competitive pressures continue to intensify worldwide.⁴⁰ Twenty-three percent expected profits to decrease while nearly half felt the market was too volatile to predict. The executives expect suppliers to remain the least profitable segment of the automotive industry, in particular, Tier 2 and 3 suppliers. Seventy-seven percent of the executives predicted an increase in bankruptcies as well as much higher merger and acquisition activity particularly among Tier 1 suppliers. Many analysts and industry members expect the North American industry restructuring to continue into 2011, so the pressures driving industry consolidation will remain for some time.

Other Industry Developments

Counterfeiting

Counterfeiting continued to be a major issue in the automotive parts industry. The U.S. Federal Trade Commission estimated that counterfeit automobile parts cost the American automotive supplier industry \$12 billion annually worldwide, including \$3 billion in the

³⁹ Gopwani, Jewel, "Carmakers Oil Supply Chain: Toyota, Honda Keep Parts Makers Going; Now GM, Ford Act," by *Detroit Free Press*, January 28, 2008.

⁴⁰ "KPMG's 2009 Global Auto Executive Survey," http://www.us.kpmg.com/RutUS_prod/Documents/8/AutoSurveyRelease2009.pdf

United States alone. In a 2007 study issued by the U.S. Chamber of Commerce, Ford concluded that counterfeit auto parts cost it roughly \$1 billion annually. The parts that tended to be counterfeited the most were frequently replaced parts, such as brake pads, spark plugs, and various types of filters. Both the Motor and Equipment Manufacturers Association (MEMA) and the Organization for Economic Cooperation and Development (OECD) claimed the majority of counterfeit parts were made in China. Other nations with a significant numbers producing and exporting fake auto parts include Taiwan, Hong Kong, Russia, India, Pakistan, and Uruguay. The Middle Eastern market experienced major problems with counterfeit auto parts, mainly being shipped through Dubai. Trademark infringement cases increased from 400,000 in 2000 to 1.3 million in 2003. Counterfeit parts now comprise an estimated 30 percent of the Middle East's \$11 billion components sector. Counterfeiters take jobs and money away from legitimate companies, jeopardized public safety, destroyed brand names, increased warranty claims, and legal fees and require costly investigations.

In March 2006, President Bush approved the "Stop Counterfeiting in Manufactured Goods Act," which was supported by the U.S. auto parts industry. The Act strengthens previous U.S. trademark laws by prohibiting the trafficking of counterfeit trademarks such as labels, patches and medallions, and requiring the destruction of equipment used to make counterfeit goods.

The automotive industry called upon leading countries to work on details of a global Anti-Counterfeiting Trade Agreement (ACTA). ACTA is a proposed plurilateral agreement that would impose strict enforcement of intellectual property rights. The countries working on ACTA include the United States, Australia, Canada, European Union, Japan, Jordan, Korea, Mexico, Morocco, New Zealand, Singapore, Switzerland and the UAE. Countries have been criticized for lack of effective and deterrent enforcement and an agreement would create common and effective enforcement practices.

Alternative Fuels, Hybrid, and Diesel Technology

The Energy Independence and Security Act (EISA) of 2007 requires increased fuel economy standards, increased production of biofuels for transportation, and provided incentives for electric vehicles. It also provides loan guarantee programs for fuel-efficient automobile parts manufacturers, and construction of facilities for the manufacture of lithium ion batteries, hybrid vehicle electrical system and component manufacturers, and related software designers. Under Section 136 of EISA, the Federal Government offers grants and loans as an incentive to automakers and suppliers to develop advanced technology vehicles and associated components. The program, also known as the Advanced Technology Vehicles Manufacturing Loan Program (ATVM) is administered by the U.S. Department of Energy. ATVM is designed to encourage plant retooling for advanced vehicle and components production and seeks to develop domestic engineering capacity. To qualify, vehicles will have to get at least 25 percent better fuel economy than the average of similar vehicles. Ford requested \$11 billion under the program, Chrysler \$8 billion, and GM \$7.7 billion.

These incentive programs were followed by the Energy Improvement and Extension Act of 2008 that was part of the economic stabilization package signed into law in October of 2008. The Act increases and extends tax credits for biodiesel and renewable diesel fuel through 2009 and it provides a tax credit for plug-in vehicles until 2014. The American Recovery and Reinvestment Act enacted in February of 2009 added further incentives to shift away from petroleum fuels including extending the tax credit for plug-in vehicles, more loan guarantees for advanced vehicle technology production capabilities, and Federal fleet purchasing requirements for alternative fuelled vehicles. Congress is considering the creation of greenhouse gas cap and trade rules.

Suppliers can expect to benefit from the incentives Congress has provided if they can develop technologies to make cars more fuel efficient or enable the switch to alternative fuels. Some of the technologies that vehicle producers are exploring include direct fuel-injection systems, exhaust after-treatment systems, start-stop technology, low friction tires, light weight materials and electrically driven accessories. Most of these technologies are applicable to vehicles running on both conventional petroleum fuels and biofuels.

Former GM Vice Chairman, Bob Lutz said that 80 percent of vehicles will be hybrids by 2020 in order to meet pending fuel economy requirements.⁴¹ The electrical components for EVs fall into three basic categories: electric motors, batteries (or fuel cells and tanks), and invertors. Other potential sources of supplier business for these systems would be electrically driven auxiliary systems, software controls, instrument panels and cooling systems. Suppliers that provide related components for conventional powertrains should have an advantage in adapting their parts to these new systems.

Battery research is a top priority for all of the EV options. Batteries are important for electric, hybrid and fuel cell vehicles. GM's Lutz also said that building so many hybrids will add \$6,000-\$7,000 to the cost of an average vehicle. The primary reason for this added cost in his estimation is the price of batteries. The challenge is to create a battery that can recharge quickly, last long and not overheat, while still being small, light and cost-effective. If the cost of lithium-ion batteries doesn't decrease as projected, it could jeopardize the development of many hybrid-electric vehicles. Battery manufacturers, including A123 Systems, Cobasys LLC, and a partnership between Johnson Controls Inc. and Saft Advanced Power Solutions, are leading research to overcome Li-ion battery shortcomings. Many of their current offerings have little chance of overheating and can take many charges and recharge cycles but are limited in the amount of energy they can store. They are also expensive so prices will have to decline significantly to increase sales.

Unfortunately, much of the new demand for parts made possible by U.S. Government incentives could be captured by foreign suppliers. One reason for this is that many foreign suppliers already provide fuel efficient technologies to automakers elsewhere in

⁴¹ Sheppardson, David. "Lutz: Most Vehicles Will Be Hybrid by 2020." *Detroit News*, 3/19/08.

the world. Another is that the supply-base for some of the newer products is currently concentrated in other markets.

Virtually every manufacturer is working to market a plug-in vehicle by 2012. To supply these vehicles, automakers are generally turning to foreign suppliers for battery cells. Current production of battery cells is centered in Asia. A similar situation exists for electric motors and power inverters. Japanese suppliers are the source for most of the world's current hybrid parts. While interested in U.S.-based A123's battery cells for their Volt, GM decided to purchase its initial battery cells for the Volt program from Korean-based supplier LG. Ironically, the production of the battery cells would have occurred in Asia whichever choice GM made since A123 currently produces its battery cells primarily in China and Korea. Some U.S. suppliers, like Johnson Controls, are trying to enter the market, but uncertainty has kept many U.S. suppliers from committing capital. The new incentives have helped alleviate that problem. Now they are constrained primarily by the dire financial situation and resultant lack of available credit.

Automakers and parts suppliers are trying to determine where the key intellectual properties will lie if automobiles become primarily EVs in the future. GM reported that it plans to manufacture in-house the lithium ion battery packs for the Chevrolet Volt. The battery packs include the battery cells, cooling/heating systems and electronic controls needed for the batteries' operation. GM is suggesting that packaging lithium batteries is the most important aspect from an automotive perspective. Several battery cell manufacturers believe however that cell production capabilities will be the biggest differentiator. The answer to this question is extremely important for the future of the firms involved. In a similar situation IBM guessed wrong on the key technology to control in the burgeoning personal computer market, allowing Microsoft to seize the operating system market and eventually eclipse IBM in sales.

In-Vehicle Electronics, Engineering, Safety, and New Technologies

According to a study by Roland Berger, a strategy consultant firm, the value added to vehicles by suppliers will grow from 40 percent in 2002 to 55 percent by 2015.⁴² Among some of the new technologies being added or becoming standard on vehicles are safety features like blind-spot detection, and side/head airbags. Other innovations being added are navigation systems, MP3 player connections, Bluetooth wireless connections, and mobile video.

Some analysts predict that electronic components could account for 35 percent of the cost of making a car by 2010, up from 22 percent in 2005, and that the amount of software in cars would double every three years. However, these electronics add to the vehicles' complexities and accounted for about 70 percent of breakdowns in 2005. Communication, navigation, and other entertainment systems in vehicles are complex computerized electronic equipment that are becoming more prevalent. Analysts expected

⁴² Roland Berger Strategy Consultants and OESA, "The Odyssey of the Auto Industry: Suppliers Changing Manufacturing Footprint," 04/2004.

in-vehicle electronic sales would grow 13 percent in 2008 to \$12.2 billion.⁴³ The proliferation of electronic content in vehicles has also increased the number of electronic control units in vehicles. Automotive microcontroller units were expected to reach \$5.3 billion in sales in 2008. Because the technology in “green” vehicles, such as hybrids, is controlled by microcontrollers, the market could reach \$6.3 billion by 2012.

The market has shifted from a concentration on sound systems to one that is about navigation and entertainment systems. AM radios were first installed in vehicles in 1930, FM radios in 1952, tape decks were introduced in 1964, and CD players in 1982. In the last 10 years, DVD players, satellite radios, high-definition radios, navigation devices, and MP3 adaptors have been introduced into vehicles. Analysts expect many more devices and interfaces in the years to come. In 1999, navigation and entertainment systems accounted for under 12 percent of total mobile electronics retail sales. In 2006, the market share was 23.5 percent.

A survey by TechnoMetrica found that one in ten owners have navigation or safety/security services installed in their vehicles; about one out of five consumers were planning to install navigation systems within the next 12 months, while 13 percent were planning to install safety/security services.⁴⁴ DVD players were moderately important to consumers. More than 58 percent of 2009 models will offer portable media player interfaces, especially for MP3 players such as the iPod, up from 39 percent in 2008. In addition, 82 percent of the 2009 models will offer Bluetooth wireless connection, up from 70 percent in 2008. The increasing size and demand of data for infotainment systems, digital maps, 3D images, and information about the surrounding area are requiring large data storage devices such as embedded hard disks, which will be found on 90 models in 2009. Embedded computer hard drives are expected in about a third of 2009 models and USB interface will also be on a third of the models, up from 16 percent in 2008.⁴⁵

Subscription telematic services are also becoming more prevalent. The industry leader, OnStar will be available on 90 percent of GM vehicles in 2009. OnStar has been providing service for 13 years and has over 5 million subscribers. Ford’s Sync system is serviced by Continental and ATX provides service to MercedesBenz. Hughes Telematics will provide service to the Chrysler and Daimler 2010 models. Toyota has also announced a proprietary Safety Connect that it will offer in its brands in 2009. In addition to these services providing navigation, collision notification, traffic alerts, automatic toll pay, wireless bluetooth connection, and remote door unlock, these services will include informing drivers of weather conditions, allowing drivers to access entertainment, allow manufacturers to remotely update software, allow remote emissions and safety testing, allow “teen” tracking, give re-routing suggestions to avoid congestion, provide in-vehicle satellite television, automatically slow down a stolen vehicle, and enable mileage-based insurance.

⁴³ Study by Consumer Electronic Association in Popc, Byron. “Demand Grows for In-Vehicle Technology.” *Ward’s Automotive Reports*, 11/24/08, p. 7.

⁴⁴ Spoonhower, Jim. “Mobile Electronics.” *SEMA NEWS*, 12/07, pp. 94-98.

⁴⁵ Scott, Patricia. “iSupply Report: 2009 Vehicles will have more iPod, Bluetooth Connections.” *Automotive News*, 10/9/08.

All this in-vehicle electronic equipment has many experts concerned about safety. Nearly 25 percent of car accidents or near accidents involved non-driving distractions. Automakers and parts suppliers are trying to use the in-vehicle electronics to improve safety. By improving center stack configurations, tactile controls on the steering wheel and better versions of head-up LED windshield displays they hope to reduce distractions. Automakers and suppliers are also using the technology to develop lane departure notification systems, collision avoidance systems, and inattentive driver alert systems/driver drowsiness detection.

Advanced adaptive cruise control began entering the market on European luxury cars in 2006. Adaptive cruise control (ACC) maintains a certain distance from the car in front, down to a crawl. Advanced ACC would bring the car to a stop and could resume its cruise control functions from a stop. Such technology raises legal and liability questions involving equipment that functions independently of the driver. The technology is also expensive, with costs about \$1,500 to \$2,500, mostly because of the radar or infrared emitters and sensors used to track other cars. Suppliers are working on ways to reduce the price, including using camera-based systems and less expensive radar equipment.

Some suppliers, like TRW Automotive, with products such as air bags, antilock brakes and electronic stability control systems, have benefited from automakers' emphasis on safety and new safety regulations. In 2007, the National Highway Traffic Safety Administration (NHTSA) passed its final rule on electronic stability control (ESC), which automatically applies pressure to brakes to correct for skidding and swerves. The law means that ESC will become standard on all vehicles except the largest trucks by 2012. Currently, only 30 percent of new vehicles have electronic stability control. Suppliers of electronic stability control systems expect to get a sales boost of more than \$1 billion from the new regulation. The North American market for electronic stability control systems is expected to expand from about \$555 million in 2006 to \$1.8 billion in 2012.

The success of airbags, which NHTSA estimates saved 18,193 lives since their inception, has led to an increase in side-curtain airbag business. Like the ESC rules, new federal side-impact regulations will increase installation of side-curtain airbags as automakers and suppliers devise different ways to meet the standard. CSM Worldwide, automotive market analysts, predicts that North American sales of side-curtain airbags will grow to 17 million units in 2010, up from 9.2 million in 2006. The value is projected to reach \$4.3 billion by 2010, from \$2.8 billion in 2006.

International Developments and Trade

The depressed global automotive industry at the end of 2008 is expected to continue well into 2009 and beyond. Despite weakening in the United States in previous years, suppliers globally were generally profitable. Globally, suppliers in developed country markets faced more difficulty, while those in developing markets generally experienced robust growth. In its 2006 Global Automotive Supplier Study, Roland Berger Strategy Consultants found that suppliers based in Western Europe, South Korea and other parts of

the world maintained steady profitability between 2000 and 2005, while Japanese suppliers posted 3.2 percent gains. During the same period, North American suppliers declined 3.6 percent. Those most successful had a narrowly focused product portfolio, broad customer base globally, low reliance on business with the Detroit 3, and aggressively used component sourcing from low-cost regions of the world.

Going forward, the BRIC (Brazil, Russia, India, and China) countries are expected to experience some near-term growth in the automotive sector while developed countries are likely to see declines. Some U.S. suppliers found that while they are having difficulties at home, their foreign operations were profitable. Large suppliers, such as Johnson Controls Inc., Lear Corp., TRW Automotive Inc., ArvinMeritor Inc., and Dupont Automotive Systems, got at least 35 percent of their total revenue from Europe in 2007. Some suppliers tried to reduce their dependence on the high-cost, low-margin American market and shift manufacturing to lower cost countries. Suppliers, often with the encouragement of automakers, are exploring growth opportunities in the BRIC developing countries. These countries are seeing more growth in the automotive industry than North America, Japan, and Western Europe. Still the growth in the developing countries was also down in 2008 and expected to be down in 2009 as the automotive slump affected them as well.

The U.S. trade deficit in automotive parts dropped 13.4 percent in 2008 to \$33.1 billion, down from a record level of \$38.3 billion in 2007 (Table 13, Charts 11 and 12). The parts deficit increased the past few years because U.S.-made automotive parts lost market share to increasingly competitive foreign production. However, the weak dollar has made U.S. exports more competitive while restraining U.S. imports. Still in 2008 both automotive parts exports and imports declined because of the global automotive slump. However, imports declined at a greater rate than exports hence the improvement in the U.S. parts trade deficit.

According to U.S. Census data, the United States exported \$57.5 billion worth of automotive parts in 2008. This is a decrease of 7.2 percent from the record \$62 billion exported in 2007 (Table 14, Charts 11 and 13). Automotive parts exports to Canada (\$28 billion) and Mexico (\$13.9 billion) accounted for 73 percent of the total U.S. parts exports in 2008, down from the 75 percent they accounted for in 2007 (Chart 14). U.S. automotive parts exports to Japan and the EU-15 accounted for \$6.9 billion, or 12 percent, of the total U.S. automotive parts exports. Combined, the NAFTA, European Union 15, and Japanese markets accounted for 85 percent of total U.S. automotive parts exports in 2007.

Automotive parts exports rose 16.6 percent to \$842 million to Brazil, 95.1 percent to \$245 million to Russia, and 50 percent to \$196 million to India in 2008. However, exports declined 21 percent from \$1.1 billion to \$893 million to China in 2008.

U.S. automotive parts imports declined 9.6 percent to \$90.6 billion in 2008 from a record high of \$100.2 billion in 2007 (Table 15, Charts 11 and 15). In 2008, Canada accounted for \$16.5 billion worth of U.S. automotive parts imports and Mexico accounted for \$25.3

billion. Together, automotive parts from these two countries accounted for 46 percent of the total U.S. automotive parts imports (Chart 16). Rounding out the top five supplier countries of automotive parts to the United States in 2008 were Japan (\$13.5 billion), China (\$9 billion), and Germany (\$7.4 billion).

Japanese auto parts shipments to the United States were down 8.6 percent in 2008 from 2007 levels. A large portion of these imports are components for assembly at the Japanese transplant facilities. The Japanese produced roughly 3 million vehicles in the United States in 2008, compared to about 1.5 million vehicles in 1990. The Japanese-based firms U.S. auto plants are sourcing more of their components in the United States, Canada, and Mexico due to the rising Yen.

China continued to grow as a source of automotive parts for the United States (Charts 17 and 18). Imports from China increased 4.8 percent in 2008 to \$9 billion, from \$8.6 billion in 2007, passing Germany as the fourth largest source of auto parts after Mexico, Canada, and Japan. Parts imports from China had been increasing steadily over the past few years, increasing 24.5 percent between 2007 and 2006 alone. In comparison, 2008 parts imports from Brazil dropped 1.8 percent to \$1.7 billion, while shipments from India grew 11.2 percent to \$738 million.

China

In 2008, China remained the second largest automotive market in the world after the United States, with vehicle sales increasing almost 22 percent to hit 9.38 million units. Production in China was 9.34 million units, an increase of 5.21 percent. More than 70 of the top 100 global auto suppliers now have operations in China, and foreign auto parts suppliers continue to open and/or expand their Chinese operations. Global vehicle manufacturers with operations in China encouraged suppliers to set up manufacturing facilities in China, since most of China's traditional domestic suppliers were not competitive. The vehicle manufacturers also expected China to become a low-cost source for their worldwide operations. GM reported it had 198 suppliers in China that supplied its global operations in 2007.⁴⁶ Goldman Sachs estimated that Chinese net exports of auto parts would increase from \$5.4 billion in 2005 to \$21 billion in 2010. With the increase in foreign investment over the past few years, China's automotive manufacturing has become increasingly competitive.

Following the labor strike in the United States that lasted months, American Axle announced that it would source more parts in China because of the low cost production. It was reported that American Axle was able to reduce pay for its unionized workers to \$35-\$40 per hour including benefits. In Mexico, workers get \$4-\$5 per hour including benefits, but in China the same job pays \$1.50-\$1.75 per hour including benefits.⁴⁷ In

⁴⁶ GM global purchasing chief, Bo Andersson, cited in "GM's on the Hunt for China Suppliers," *Automotive News*, 12/17/07, p. 45.

⁴⁷ Ribet, Steven. "American Axle: Low-cost China a very good fit," *Automotive News*, 12/22/08, p. 9.

China, labor represents about 1-1.5 percent of the total cost of components; in Europe it is 15-20 percent; while in the United States it is 18-20 percent.⁴⁸

However, rising labor rates, raw material prices, currency exchange rates, and the slow development of qualified Chinese suppliers have cut China's cost advantage and could hinder the growth of Chinese auto parts exports in the future. Some of the factors cutting into China's advantage included rising oil prices that drove up transportation costs of Chinese parts exports. The strengthening of the Yuan has acted to reduce the labor cost disparity. Also, China slashed sales-tax rebates on many exported goods, and new labor laws in 2008 guaranteed workers employment contracts, social security contributions, and overtime pay. This action boosted labor costs about 30 percent. At the same time Chinese wages have increased about 10-15 percent. Companies also have to make large investments to bring Chinese production up to international standards. Nonetheless, improvements in productivity have offset some of the increases in wages. Automakers and suppliers still seek cost-cutting opportunities in China, but they tend to be more selective.

China has become a strong player in manufacturing global automotive electronics. While China lacks automotive-electronic design experience and local suppliers lack manufacturing and technical expertise, China already has a strong consumer electronics supply base as a major producer of CD players, computers and other mass-market items. These skills are being adapted to automotive electronics and foreign companies are assisting these businesses. Another subsector where China excels is cast metal parts, which require environmentally hazardous casting and a large amount of manual labor.

As Chinese auto producers prepare to enter Western markets in the next few years, top global suppliers are assisting them with engineering and technical expertise. Chinese automakers are also buying factory equipment from leading international suppliers. Competitive Chinese suppliers are looking to begin manufacturing and selling in overseas markets. For example, Wanxiang Group, a Chinese driveline parts supplier that generated \$6.5 billion in global revenues in 2007 and whose customers include GM and Ford, is planning to build a full-scale development and tech center in Detroit. Many are acquiring or investing in small and medium-sized suppliers located in these markets, including the United States, to help them begin manufacturing and/or assist with distribution as well as transfer technology back to China.

The Chinese government's auto policies, including automotive-related R&D activities, strongly encourage the development of the local supplier industry. In Spring 2006, the United States, along with the EU and Canada, requested World Trade Organization (WTO) dispute settlement consultations with China regarding regulations on imported auto parts. They argued that China's auto parts tariff classification regulations result in increased tariffs that are higher than China agreed to in its WTO accession agreement, and it discourages auto manufacturers in China from using imported auto parts. China's regulations impose the same tariff rates for a vehicle on imported auto parts if the imported parts exceed a fixed percentage of the final vehicle content or vehicle price, or

⁴⁸ Webb, Alysha. "Costs Up in China, but Bargains still abound." *Automotive News*, 5/5/08, p. 16.

when specific combinations of imported auto parts are used in the final vehicle. The tariff on automobiles is typically 25 percent, and the tariff on imported parts is typically 10 percent. In mid-September 2008, China appealed the WTO's July 2008 ruling that China must bring its import tariffs for foreign auto parts into compliance with international trade rules. However, in December 2008, China's appeal was rejected.

Supplier associations are also concerned about the proliferation of "quality standards" in countries such as China. These quality standards are ostensibly aimed at consumer protection, but end up being a form of non-tariff protection since countries imposing the standards require local bodies to do the quality assessments and many suppliers are unable to afford certifying compliance. In some cases countries use a "positive list" style regulatory approach which specifically identifies products that are allowed and any not on the list are excluded. This greatly restricts the access of novel and new to market goods. The United States takes a "negative list" style approach presuming products are allowed unless specifically excluded.

When deciding whether to set up an operation near a specific customer in China, U.S. suppliers need to determine if economies of scale can be achieved, if energy sources are reliable, and if they will be able to source from reliable, lower-tier suppliers or be able to import subcomponents at a competitive price. In addition, suppliers need to be aware that increased competition for both parts and vehicles in China has led to a decrease in prices and profit margins. In entering into a joint-venture arrangement, any potential partner should be carefully evaluated. As mentioned earlier, automotive-related counterfeiting in China also remains a concern for the industry. Suppliers should keep this in mind especially when sharing intellectual property with partners or suppliers. Because the transfer of knowledge would allow the Chinese to compete against the proprietors and may invite counterfeiting, many companies are reluctant to send advanced technology to China.

When considering sourcing from China, U.S. companies are cautioned to not be lured by price and/or low wage rates alone, but to consider their potential suppliers' quality levels, a supplier's technical and engineering expertise to cope with design changes, as well as all of the various logistical factors, such as necessary lead time, and delivery schedules and costs. The safety and compliance of Chinese-manufactured goods is also a sourcing concern, as evidenced by the recall during the summer of 2007 of 450,000 defective tires imported from China.

The Chinese automotive aftermarket is expected to continue to grow at an annual rate of 40 percent, as the market increases for both new and used autos, the number of outlets offering aftermarket parts and services expands, new emissions control technologies are introduced, and the Chinese economy continues to grow. In 2008, the Chinese government approved an amendment to the National Road Traffic Safety Law, allowing the sale and installation of more than 500 accessory and performance product categories for consumers to legally accessorize their vehicles.

Conclusion

The U.S. automotive parts industry can expect another difficult year in 2009. Economic strains will continue to derive from the global automotive decline, Ford, GM, and Chrysler's production cuts, steel and raw materials price increases, the credit crunch, price cut demands from U.S. automakers, and increased competition from foreign suppliers. The industry can expect more departures and consolidations of suppliers as profit margins are squeezed.

Industry experts expect that domestic vehicle manufacturers will continue to lose market share to U.S.-affiliates of foreign-based manufacturers and imports. Many U.S. parts suppliers are trying to become suppliers to the foreign-affiliated (transplant) automakers to offset those losses. However, some are finding it difficult to enter transplant automakers' supply chains, in part because transplants have previously established relationships with home-market (foreign) suppliers, whether through imports or through home-market suppliers' U.S.-affiliates, or have already established long term relationships with other U.S. suppliers. In this market, those suppliers with limited exposure to the Detroit 3 are also being pinched as transplant automakers are also affected by decreased automotive demand.

Automotive parts imports from China continue to grow and account for an increasing share of U.S. automotive parts imports, but the growth has slowed to less than half the rate experienced in previous years. The U.S. automotive parts trade deficit with China will likely continue to grow over the next few years as exports to China will not keep up with imports from China. Many automotive parts companies will continue to move production to China and other low-wage countries like India and Eastern Europe, in an effort to reduce costs and remain competitive.

FACT SHEET**Production**

- U.S. automotive parts industry production declined further in 2008 compared with 2007, in large part because of the collapse of the global vehicle market and production cutbacks especially at the Detroit 3. Industry analysts predict that 2009 will be a very difficult year for U.S. automotive parts suppliers and vehicle makers as the market remains depressed and competition remains fierce. This is especially true for the Detroit 3 and the suppliers that rely heavily on them.
- The Bureau of Labor Statistics (BLS), U.S. Department of Labor, reported that automotive parts industry employment was an estimated 604,700 jobs in 2008. This is a decline of 10.1 percent from the 672,700 jobs in 2007. The last time the number of jobs increased in the automotive parts industry occurred in 2000, when employment grew 0.3 percent to 920,300.
- Regardless of production and employment declines, automotive manufacturers and suppliers directly and indirectly account for more jobs than any other manufacturing sector.

Sales

- The 150 largest North American OE suppliers had sales of \$199 billion in 2007, up 3.1 percent from 2006. The top 10 North American suppliers accounted for 35.5 percent of the total in 2007, down slightly from 36.2 percent of the total in 2006. For the first time a company based outside the United States, Canadian supplier Magna International, is the largest supplier of parts in North America.
- In 2007, foreign-based suppliers occupied 5 of the top 10 North American supplier rankings. In 1997 only 2 of the top 10 spots were held by foreign-based companies.
- Original Equipment (OE) parts demand in the United States decreased 20.5 percent to \$139.4 billion in 2008 from \$175.3 billion in 2007.
- The U.S. automotive aftermarket (repair and add-on market) was forecasted to increase to \$190 billion in 2008, up only 1.8 percent from \$186.7 billion in 2007.

International Trade

- The 2008 U.S. trade deficit in automotive parts decreased 13.4 percent, to \$33.1 billion, from \$38.3 billion in 2007.
- U.S. exports of automotive parts in 2008 were \$57.5 billion, a decrease of 7.2 percent from 2007 levels.
- Exports to Canada and Mexico accounted for 73 percent of the total U.S. automotive parts exports in 2008.
- U.S. exports to China declined 21 percent in 2008, from \$1.1 billion in 2007 to \$893 million in 2008.
- U.S. imports of automotive parts were \$90.6 billion in 2008, a decrease of 9.6 percent from 2007 levels.
- The United States imported \$41.8 billion worth of automotive parts from Mexico and Canada in 2008. These imports accounted for 46 percent of total U.S. automotive parts imports.
- Automotive parts imports from China have grown significantly in recent years. In 2000, the United States imported \$1.6 billion worth of automotive parts. In 2007, automotive parts imports from China grew to \$8.6 billion, passing Germany as the fourth largest supplier of auto parts to the United States. Imports from China continued to increase to \$9 billion in 2008.
- The U.S.-China auto parts trade deficit has grown six-fold from only \$1.5 billion in 2001 to almost \$8.2 billion in 2008. While these exponential increases may plateau, given the current global recession, it is likely that the U.S. trade deficit with China will remain an upward climb over the coming years.

Industry Issues

- In 2008, a reduction in global automotive sales and decreased automotive production impacted many U.S. parts suppliers. This was especially true among those with extensive ties to the Detroit 3. Over the last several years, suppliers have been hit with higher energy, plastic, and steel costs, heavy debt, cash flow problems, tight credit, and overcapacity.
- Suppliers are trying to reduce high legacy costs, employee wages, and benefits to be competitive globally. Tough negotiations are taking place between suppliers, automakers, and labor unions.

Appendix 1
Office of Aerospace and Automotive Industries Automotive Parts Product Listings
Revised 12.05.2007

To facilitate the analysis of trade data for automotive parts on a market-based model, the Office of Aerospace and Automotive Industries (OAAI) has created six product groupings from the available, individual 10-digit product codes. The core of the codes are contained in Chapter 87, A Vehicles Other Than Railway or Tramway Rolling-Stock, and Parts and Accessories Thereof of the internationally-agreed Harmonized Tariff System (HTS). We list these groups and their codes below. Some codes are not valid for current years, but are included to assure that data for products so coded for previous years are retrieved from the database and assigned to the appropriate OAAI group.

The OAAI groups are not "official" product subcategories, and are not listed in the Harmonized Tariff System nomenclature published by the U.S. International Trade Commission (USITC) for coding imports (Internet address: <http://www.usitc.gov/taffairs.htm>), nor in the parallel "Schedule B" published by the U.S. Census Bureau for coding exports (<http://www.census.gov/foreign-trade/schedules/b/2001/sb87.htm>). The OAAI attempts to closely approximate the core automotive industry by excluding certain items for example, parts explicitly listed for motorcycles, golf-carts, snowmobiles, agricultural equipment, etc.

Readers should realize that OAAI is not the only, nor the "official," U.S. government source for trade data on the auto industry, nor are we able to produce custom data runs for the public. Persons seeking data for individual or different product codes are welcome to utilize at no charge the data retrieval system operated by the USITC to access the federal government's official trade data base. Please note, some of the data on the trade database may be restricted from the public. The ITC's retrieval system, *Trade DataWeb*, can be accessed at http://dataweb.usitc.gov/scripts/user_set.asp.

HTS Codes by Product Group

Bodies and Parts		Bodies and Parts	
7007110000	Safety Glass	7007110000	Safety Glass
7007110010	Safety Glass	7007211000	Windshields
7007211000	Windshields	7007215000	Safety Glass
7007211010	Windshields	7009100000	Rear-View Mirrors
7007215000	Safety Glass	8301200000	Locks
7009100000	Rear-View Mirrors	8302103000	Hinges
8301200000	Locks	8302300000	Other Mountings
8301200060	Other Locks	8707100020	Bodies
8302103000	Hinges	8707100040	Bodies
8302303000	Other Mountings	8707905020	Bodies
8302303010	Pneumatic Cylinders	8707905040	Bodies

8302303060	Other Mountings	8707905060	Bodies
8302306000	Other Mountings	8707905080	Bodies
8707100020	Bodies	8708100010	Stampings of Bumpers
8707100040	Bodies	8708100050	Bumpers and Parts
8707905020	Bodies	8708210000	Seat Belts
8707905040	Bodies	8708290010	Stampings of Bodies
8707905060	Bodies	8708290025	Truck Caps
8707905080	Bodies	8708290050	Parts & Access. of Bodies
8708100010	Stampings of Bumpers	8708290060	Parts & Access. of Bodies
8708100050	Bumpers and Parts	8708295025	Truck Caps
8708103010	Stampings of Bumpers	8708295070	Other Pts. & Access. Bodies
8708103050	Bumpers	8708295170	Parts & Access of Bodies
8708106010	Stampings Parts of Bumpers	8708990045	Slide-in Campers
8708106050	Parts of Bumpers	8708998030	Slide-in Campers
8708210000	Seat Belts	8708998130	Slide-in Campers
8708290010	Stampings of Bodies	9401200000	Seats
8708290025	Truck Caps	9401901000	Seat Parts
8708290050	Parts & Access. of Bodies	9401901010	Seat Parts of Leather
8708290060	Parts & Access. of Bodies	9401901080	Seat Parts
8708291000	Inflators & Modules Airbags	9403901000	Parts of Furnitures
8708291500	Door Assemblies		
8708292000	Body Stampings		
8708295010	Stampings		
8708295025	Truck Caps		
8708295060	Other Parts		
8708950500	Inflators & Modules Airbags		
8708952000	Airbag Parts		
8708995045	Slide in Campers		
8708996100	Airbags		
9401200000	Seats		
9401200010	Child Safety Seats		
9401200090	Seats		
9401901000	Seat Parts		
9401901010	Seat Parts of Leather		
9401901020	Seat Parts of Textile		
9401901080	Seat Parts		
9401901085	Seat Parts		
9403406000	Wooden Furniture for M.V.		
9403506000	Wooden Furniture for M.V.		
9403901000	Furniture?		
9403901040	Parts of Furniture for M.V.		
9403901050	Parts of Furniture for M.V.		
9403901080	Parts of Furniture for M.V.		
9403901085	Parts of Furniture for M.V.		

Chassis and Drivetrain Parts

4009120020	Brake Hoses
4009220020	Brake Hoses
4009320020	Brake Hoses
4009420020	Brake Hoses
4009500020	Brake Hoses
6813100050	Brake Linings & Pads
6813200015	Brake Linings & Pads
6813200025	Asbestos Friction
6813810050	Brk Lnngs & Pads, not asbestos
6813890050	Min Sub Friction
6813900050	Friction Materials
7318160010	Lugnuts
7318160015	Lugnuts
7318160030	Lugnuts
7318160045	Other Lugnuts
7320100015	Leaf Springs
7320103000	Leaf Springs
7320106015	Leaf Springs
7320106060	Leaf Springs
7320201000	Helical Springs
8421394000	Catalytic Converters
8482101000	Ball Bearings
8482101040	Ball Bearings
8482101080	Ball Bearings
8482105044	Radial Bearings
8482105048	Radial Bearings
8482200010	Tapered Roller Bearings
8482200020	Tapered Roller Bearings
8482200030	Tapered Roller Bearings
8482200040	Tapered Roller Bearings
8482200050	Tapered Roller Bearings
8482200060	Tapered Roller Bearings
8482200070	Tapered Roller Bearings
8482200080	Tapered Roller Bearings
8482400000	Needle Roller Bearings
8482500000	Other Cylindrical Bearings
8708301090	Brakes and Parts
8708305020	Brake Drums
8708305030	Brake Rotors (Discs)
8708305040	Mounted Brake Linings
8708305090	Brake Parts
8708315000	Mounted Brake Linings
8708395010	Brake Drums & Rotors
8708395020	Brake Drums
8708395030	Brake Rotors
8708395050	Brakes & Servo-Brakes

Chassis and Drivetrain Parts

4009120020	Brake Hoses
4009220020	Brake Hoses
4009320020	Brake Hoses
4009420020	Brake Hoses
4009500020	Brake Hoses
6813100000	Brake Linings & Pads
6813200000	Friction Material
6813810000	Brake Linings
6813890000	Other Brake Materials
6813900000	Other Friction Materials
7320100000	Leaf Springs
7320201000	Helical Springs
8421394000	Catalytic Converters
8482101000	Ball Bearings
8482105044	Radial Bearings
8482105048	Radial Bearings
8482200020	Tapered Roller Bearings
8482200030	Tapered Roller Bearings
8482200040	Tapered Roller Bearings
8482200060	Tapered Roller Bearings
8482200070	Tapered Roller Bearings
8482200080	Tapered Roller Bearings
8482400000	Needle Roller Bearings
8482500000	Other Cylindrical Bearings
8708300010	Mounted Brake Linings
8708300050	Brakes & Servo-Brakes
8708310000	Mounted Brake Linings
8708390000	Other Brakes
8708401000	Gear Boxes
8708401110	Gear Boxes
8708401150	Gear Boxes
8708402000	Gear Boxes
8708403500	Gear Boxes
8708406000	Gear Boxes
8708408000	Gear Box Parts & Access.
8708500050	Drive Axles
8708504110	Drive Axles
8708504150	Non-Driving Axles
8708507200	Drive Axle Parts & Access
8708600050	Non-Driving Axles
8708700050	Road Wheels & Pts.
8708800050	Suspension Shock Absorbers
8708805000	Suspension Shock Absorbers
8708807000	Suspension Systems Parts
8708918000	Radiator Parts & Access.
8708925000	Radiators

8708401000	Gear Boxes	8708928000	Muffler Parts & Access.
8708401110	Gear Boxes	8708935000	Clutches and Parts
8708401150	Gear Boxes	8708945000	Steering Wheel, Column
8708402000	Gear Boxes	8708948000	Steering Wheel Parts & Acces
8708405000	Gear Boxes	8708990070	Wheel Hub Units
8708407000	Cast Iron Parts, Gear Box	8708995800	Wheel Hub Units
8708503000	Drive Axles for Tractors	8708996100	Airbags
8708505110	Drive Axles for Tractors	8708998015	Wheel Hub Units
8708505000	Drive Axles	8708998115	Wheel Hub Units
8708505110	Drive Axles		
8708506100	Drive Axles		
8708505150	Non-Driving Axles		
8708506500	Non-Driving Axles		
8708507900	Parts of Non-Driving Axles		
8708508000	Drive Axles		
8708508100	Cast Iron Parts, Drive Axles		
8708508500	Drive Shaft Parts		
8708508900	Drive Axles Parts		
8708509110	Spindles for Non-Drive Axles		
8708509150	Parts of Non-Driving Axles		
8708509300	Cast Iron Parts, Drive Axles		
8708509500	Drive Shaft Parts		
8708509900	Parts, Drive Axles		
8708605000	Non-Driving Axles		
8708608010	Spindles		
8708608050	Non-Driving Axles		
8708704530	Road Wheels		
8708704545	Road Wheels		
8708704560	Wheel Rims		
8708706030	Wheel Covers		
8708706045	Wheel Covers & Hubcaps		
8708708010	Wheels		
8708708015	Wheels		
8708708025	Wheels		
8708708030	Wheels		
8708708035	Wheels		
8708708045	Wheel Rims		
8708708050	Parts & Access. for Wheels		
8708708060	Wheel Covers & Hubcaps		
8708708075	Parts & Access. for Wheels		
8708801300	Suspension Shock Absorbers		
8708801600	Suspension Shock Absorbers		
8708803000	Suspension Shock Absorbers		
8708804500	Suspension Shock Absorbers		
8708805000	Suspension Shock Absorbers		
8708806000	Cast Iron Parts, SS		
8708806510	Beam Hanger Brackets		

8708806590 Suspension System Parts
 8708925000 Mufflers
 8708935000 Clutches & Parts
 8708936000 Clutches
 8708937500 Parts of Clutches
 8708945000 Steering Wheels, Columns
 8708947510 Steering Shaft Assembly
 8708947550 Parts
 8708995010 Steering Shaft Assemblies
 8708995020 Wheel Hub Units
 8718995025 Wheel Hub Units
 8708995030 Beam Hanger Brackets
 8708995800 Wheel Hub Units
 8708996400 Half Shafts & Drive Shafts
 8708996700 Parts (joints?)
 8708996710 Universal Joints->01
 8708996720 Universal Joints- >01
 8708996790 Other Joints->01
 8708996810 Pwr Trns Univ Jnts
 8708996820 Pwr Trns Univ Jnts
 8708996890 Power Trans Parts
 8708997030 Beam Hanger Brackets
 8708997060 Suspension System Parts
 8708997330 Steering Shaft Assemblies
 8708997360 Parts for Steering Systems
 8708998015 Wheel Hub Units
 8708998115 Wheel Hub Units
 8716905010 Axles & Parts for Trailers
 8716905030 Wheels for Trailers

Electrical and Electric Components

8414308030 Compressors
 8414596040 Fans
 8414598040 Fans & Blowers
 8415200000 Air Conditioners
 8415830040 Air Conditioners
 8415900040 Parts of Air Conditioners
 8415908040 Parts of Air Conditioners
 8415908045 Parts of Air Conditioners
 8501324500 Electric Motors
 8507100060 Storage Batteries
 8507304000 Nickel-Cadmium Batteries
 8507904000 Parts for Lead Acid Batteries
 8511100000 Spark Plugs
 8511200000 Magnetos, Dynamos
 8511300040 Distributors

Electrical and Electric Components

8414308030 Compressors
 8414596040 Fans
 8414598040 Fans & Blowers
 8415200000 Air Conditioners
 8415830040 Air Conditioners
 8507100050? Storage Batteries
 8507100060 Storage Batteries
 8507904000 Parts for Lead Acid Batteries
 8507904050? Parts for Batteries?
 8511100000 Spark Plugs
 8511200000 Magnetos, Dynamos
 8511300040 Distributors
 8511300080 Ignition Coils
 8511400000 Starter Motors
 8511500000 Generators

8511300080	Ignition Coils	8511802000	Voltage Regulators
8511400000	Starter Motors	8511806000	Other Engine Ignition Equip.
8511500000	Generators	8511906020	Parts for Distributor Sets
8511802000	Voltage Regulators	8511908000	Other Elec Ignition Equip
8511806000	Other Engine Ignition Equip.	8512202000	Lighting Equipment
8511902000	Parts for Voltage Regulators	8512204000	Signaling Equipment
8511906020	Parts for Distributor Sets	8512300000	Sound Signaling Equip
8511906040	Other Parts Engine Ignition	8512300030	Radar Dectectors
8512202000	Lighting Equipment	8512300050	Sound Signaling Equip
8512202040	Lighting Equipment	8512402000	Defrosters
8512204000	Signaling Equipment	8512404000	Windshield Wipers
8512204040	Signaling Equipment	8512902000	Parts of Signaling Equip.
8512300020	Horns	8512905000	Parts of Lighting Equip.
8512300030	Radar Dectectors	8512908000	Other Pts of Elec. Equip.
8512300040	Sound Signaling Equipment	8517120020	Radio Telephones
8512402000	Defrosters	8519934000	Cassette Tape Players
8512404000	Windshield Wipers	8525201000	CB Transmission Apparatus
8512902000	Parts of Signaling Equipment	8525206000	Other Transmission Apparat.
8512906000	Lighting Equipment Parts	8525209020	Radio Telephones
8512907000	Parts of Defrosters	8525209050?	Radio Telephones?
8512909000	Parts of Windshield Wipers	8525601010	Radio Receivers (CB)
8517120020	Radio Telephones	8527210000	Radiobroadcast Receivers
8519812000	Cassette Tape Players	8527290000	Other Radiobroadcast Receiv
8519910020	Cassette Tape Players	8531800038	Radar Detectors
8519911000	Cassette Tape Players	8531809038	Radar Detectors
8519934000	Cassette Tape Players	8536410005	Signaling Flashers
8525201500	Radio Transceivers	8539100020	Beam Lamp Units
8525206020	Radio Telephones	8539100040	Beam Lamp Units
8525209020	Radio Telephones	8544300000	Ignition Wiring Sets
8525601010	Radio Transceivers, CBs	8708950000	Airbags for MV
8527211005	Radio-Tape Players (CDs)	9029100000	Revolution Counters
8527211010	Radio-Tape Players	9029205000	Other Speedometers/Tacho
8527211015	Radio-Tape Players	9029900000	Pts & Access of Rev Counter
8527211020	Radio-Tape Players	9104000000	Inst Panel Clocks
8527211025	Radio-Tape Players		
8527211030	Radio-Tape Players		
8527214000	Radio-Combinations		
8527214040	Radio-Combinations		
8527214800	Radio-Combinations		
8527290020	Radio-Receivers AM		
8527290040	Radio-Receivers FM/AM		
8527290060	Radio-Receivers		
8527294000	Radio-Receivers FM/AM		
8527298000	Radio- Recievers		
8527298020	Radio-Receivers AM		
8527298060	Radio-Receivers		
8531800038	Radar Detectors		

8531808038 Radar Detectors
 8531809038 Radar Detectors
 8536410005 Signaling Flashers
 8539100010 Beam Lamp Units
 8539100020 Beam Lamps
 8539100040 Beam Lamps
 8539100050 Beam Lamp Units
 8539212040 Halogen Lamps
 8544300000 Ignition Wiring Sets
 9029104000 Taximeters
 9029108000 Revolution Counters, Odom.
 9029204080 Other Speedometers, Tach.
 9029902000 Parts & Access of Taximeters
 9029908040 Parts & Access of Speed/Tac
 9029908080 Parts & Access of Odometers
 9104002510 MVT & Cases Panel Clock
 9104004000 Instrument Panel Clocks
 9104004510 Movements of Inst. Clock

Engines and Parts

4010101020 Belts
 4016931010 O-Rings
 4016931020 Oil Seals
 4016931050 Gaskets
 4016931090 Gaskets
 8407341400 Engines
 8407341540 Engines
 8407341580 Engines
 8407341800 Engines
 8407342040 Engines
 8407342080 Engines
 8407344400 Engines
 8407344540 Engines
 8407344580 Engines
 8407344800 Engines
 8408202000 Compression Ignition Engine
 8409911040 Cast Iron Parts
 8409913000 Aluminum Cylinder Heads
 8409915010 Connecting Rods
 8409915080 Parts
 8409919110 Connecting Rods
 8409919190 Parts
 8409919910 Connecting Rods
 8409991040 Cast-Iron parts
 8409999110 Connecting Rods
 8409999190 Parts
 8413301000 Fuel Injection Pumps

Engines and Parts

8407342000 SP-IG Piston Engine
 8407342030 SP-IG Engine
 8407342090 Other Engine
 8408202000 Compression Ignition Engine
 8409914000 Pts for Engines
 8409994000 Other Pts for Engines
 8413301000 Fuel Injection Pumps
 8413309000 Fuel, Lub., Cooling Pumps
 8413911000 Parts of Fuel Injection Pumps
 8414308030 Compressor/Air Conditioners
 8414593000 Turbochargers
 8421230000 Oil or Fuel Filters
 8421310000 Intake Air Filters
 8483101020 Transmission Shafts
 8483103010 Camshafts & Crankshafts

8413309000 Fuel, Lub., or Cooling Pumps
 8413309030 Fuel Pumps
 8413309060 Lubricating Pumps
 8413309090 Cooling Medium Pumps
 8413911000 Parts of Fuel Injection Pumps
 8414593000 Turbochargers
 8421230000 Oil or Fuel Filters
 8421310000 Intake Air Filters
 8483101030 Camshafts and Crankshafts
 8483103010 Camshafts and Crankshafts
 9802004020 Combust. Engine Repair
 9802005030 Value of Repairs on Engines

Miscellaneous Parts

3819000000 Brake Fluid
 3819000010 Brake Fluid
 3819000090 Other Liquids
 3820000000 Anti-Freeze
 4016993000 Vibration Control
 4016995010 Mechanical Articles
 4016995500 Vibration Control
 4016996010 Mechanical Articles
 8301200030 Steering Wheel Immobilizers
 8425490000 Jacks
 8426910000 Lifting Machinery
 8431100090 Parts of Winches, Jacks
 8708407550 Parts, Radiators
 8708706060 Parts & Access. for Wheels
 8708915000 Radiators
 8708917000 Cast Iron Parts, Radiators
 8708917510 Radiator Cores
 8708917550 Parts, Radiators
 8708927000 Cast Iron Parts, Mufflers
 8708927500 Parts, Mufflers
 8708993000 Cast Iron Parts
 8708947000 Cast Iron Parts
 8708995005 Brake Hoses
 8708995060 Radiator Cores
 8708995070 Cable Traction Devices
 8708995080 Parts
 8708995085 Parts
 8708995090 Parts
 8708995200 Cast Iron Parts
 8708995500 Vibration Control Goods
 8708998005 Brake Hoses of Plastics
 8708998045 Radiator Cores
 8708998060 Cable Traction Devices

Miscellaneous Parts

3819000000 Brake Fluid
 3820000000 Anti-Freeze
 4016995010 Mechanical Articles
 8425490000 Jacks
 8426910000 Lifting Machinery
 8431100090 Parts of Winches, Jacks
 8708915000 Radiators
 8708990050 Pts & Access
 8708990090 Other Pts & Access
 8708990095 Pts & Access
 8708998075 Other Pts & Access
 8708998175 Parts & Access NESOI
 8716900000 Parts of Trailers
 8716905000 Parts

8708998080 Parts
 8708998105 Brake Hoses-Plastic
 8708998160 Cable Traction Devices
 8708998180 Parts
 8716905050 Parts for Trailers
 8716905060 Parts for Trailers

Automotive Tires and Tubes

4011100010 Radial Tires for M.V.
 4011100050 Pneumatic Tires for M.V.
 4011101000 Radial Tires for M.V.
 4011101010 Radial Tires->01
 4011101020 Radial Tires->01
 4011101030 Radial Tires->01
 4011101040 Radial Tires->01
 4011101050 Radial Tires->01
 4011101060 Radial Tires->01
 4011101070 Radial Tires->01
 4011105000 Pneumatic Tires for M.V.
 4011200005 Radial Tires for Lt. Trucks
 4011200010 Pneumatic Tires for Lt. Truck
 4011200015 Radial Tires for Buses/Truck
 4011200020 Pneumatic Tires for Buses/Tr
 4011200025 Radial Tires for Buses off
 4011200030 Pneumatic Tires for Buses off
 4011200035 Radial Tires for Buses off
 4011200050 Pneumatic Tires for Buses off
 4011201005 Radial Tires for Lt. Trucks
 4011201015 Pneumatic Tires for Buses/Tr
 4011201025 Radial Tires for Buses off
 4011201035 Pneumatic Tires for Buses off
 4011205010 Tires, ex. Radial for Lt. Truc
 4011205020 Pneumatic Tires for Buses
 4011205030 Tires, ex. Radial, for Bus
 4011205050 Pneumatic Tires for Bus
 4012104005 Retreaded Tires for M.V.
 4012104015 Retreaded Tires for Light on
 4012104025 Retreaded Tires for Bus/Truc
 4012104035 Retreaded Tires for Bus/Truc
 4012105005 Retreaded Radial Tires M.V.
 4012105009 Retreaded Tires for M.V.
 4012105015 Retreaded Radial Tires Bus
 4012105019 Retreaded Tires for Lt. Truck
 4012105025 Retreaded Radial Tires Bus
 4012105029 Retreaded Tires for Bus/Truc
 4012105035 Retreaded Radial Tires Bus
 4012105050 Retreaded Tires for Bus/Truc

Automotive Tires and Tubes

4011100010 Radial Tires for M.V.
 4011100050 Pneumatic Tires for M.V.
 4011101000 Radial Tires for M.V.
 4011105000 Pneumatic Tires for M.V.
 4011200005 Radial Tires for Lt. Trucks
 4011200010 Pneumatic Tires for Lt. Truck
 4011200015 Radial Tires for Buses/Truck
 4011200020 Pneumatic Tires for Buses/Tr
 4011200025 Radial Tires for Buses off
 4011200030 Pneumatic Tires for Buses off
 4011200035 Radial Tires for Buses off
 4011200050 Pneumatic Tires for Buses off
 4011201005 Radial Tires for Lt. Trucks
 4011201015 Pneumatic Tires for Buses/Tr
 4011201025 Radial Tires for Buses off
 4011201035 Pneumatic Tires for Buses off
 4011205010 Tires, ex Radial, for Lt. Truc
 4011205020 Pneumatic Tires for Buses
 4011205030 Tires, ex Radial for Bus/Tr
 4011205050 Pneumatic Tire for Bus/Tr
 4012105020 Retreaded Tires Bus/Truck
 4012106000 Other Retreaded Tires
 4012110000 Retreaded Tires
 4012120000 Retreaded Tires
 4012190000 Retread Tires
 4012200000 Used Pneumatic Tires
 4013100010 Inner Tubes
 4013100020 Inner Tubes
 4013900000 Other Inner Tubes

4012108009 Retreaded Tires for M.V.
 4012108019 Retreaded Tires for Lt. Truck
 4012108029 Retreaded Tires for Bus/Truc
 4012108050 Retreaded Tires for Bus, ex.
 4012114000 Retreaded Tires for Cars
 4012118000 Retreaded Tires for Cars
 4012124015 Retreaded Tires for Lt. Truck
 4012124025 Retreaded Tires for Bus/Truc
 4012124035 Retreaded Tires for Bus/Truc
 4012128019 Retread Tire for Lt. Truck
 4012128029 Retread Tire for Bus/Truck
 4012128050 Retread Tire for Bus
 4012194000 Retreaded Tires for Bus, ex.
 4012198000 Retread Tire for Bus
 4012205000 Used Pneumatic Tires
 4012206000 Used Pneumatic Tires
 4013100010 Inner Tubes
 4013100020 Inner Tubes

HTS Codes Numerically Ordered

HTS Codes for Import	Schedule B Codes for Export
3819000000 Brake Fluid	3819000000 Brake Fluid
3819000010 Brake Fluid	3820000000 Anti-Freeze
3819000090 Other Liquids	4009120020 Brake Hoses
3820000000 Anti-Freeze	4009220020 Brake Hoses
4009120020 Brake Hoses	4009320020 Brake Hoses
4009220020 Brake Hoses	4009420020 Brake Hoses
4009320020 Brake Hoses	4009500020 Brake Hoses
4009420020 Brake Hoses	4011100010 Radial Tires for M.V.
4009500020 Brake Hoses	4011100050 Pneumatic Tires for M.V.
4010101020 Belts	4011101000 Radial Tires for M.V.
4011100010 Radial Tires for M.V.	4011105000 Pneumatic Tires for M.V.
4011100050 Pneumatic Tires for M.V.	4011200005 Radial Tires for Lt. Trucks
4011101000 Radial Tires for M.V.	4011200010 Pneumatic Tires for Lt. Truck
4011101010 Radial Tires->01	4011200015 Radial Tires for Buses/Truck
4011101020 Radial Tires->01	4011200020 Pneumatic Tires for Buses/Tr
4011101030 Radial Tires->01	4011200025 Radial Tires for Buses off
4011101040 Radial Tires->01	4011200030 Pneumatic Tires for Buses off
4011101050 Radial Tires->01	4011200035 Radial Tires for Buses off
4011101060 Radial Tires->01	4011200050 Pneumatic Tires for Buses off

4011101070	Radial Tires->01	4011201005	Radial Tires for Lt. Trucks
4011105000	Pneumatic Tires for M.V.	4011201015	Pneumatic Tires for Buses/Tr
4011200005	Radial Tires for Lt. Trucks	4011201025	Radial Tires for Buses off
4011200010	Pneumatic Tires for Lt. Truck	4011201035	Pneumatic Tires for Buses off
4011200015	Radial Tires for Buses/Truck	4011205010	Tires, ex Radial, for Lt. Truc
4011200020	Pneumatic Tires for Buses/Tr	4011205020	Pneumatic Tires for Buses
4011200025	Radial Tires for Buses off	4011205030	Tires, ex Radial for Bus/Tr
4011200030	Pneumatic Tires for Buses off	4011205050	Pneumatic Tire for Bus/Tr
4011200035	Radial Tires for Buses off	4012105020	Retreaded Tires Bus/Trucks
4011200050	Pneumatic Tires for Buses off	4012106000	Other Retreaded Tires
4011201005	Radial Tires for Lt. Trucks	4012110000	Retreaded Tires
4011201015	Pneumatic Tires for Buses/Tr	4012120000	Retreaded Tires
4011201025	Radial Tires for Buses off	4012190000	Retread Tires
4011201035	Pneumatic Tires for Buses off	4012200000	Used Pneumatic Tires
4011205010	Tires, ex. Radial for Lt. Truc	4013100010	Inner Tubes
4011205020	Pneumatic Tires for Buses	4013100020	Inner Tubes
4011205030	Tires, ex. Radial, for Bus	4013900000	Other Inner Tubes
4011205050	Pneumatic Tires for Bus	4016995010	Mechanical Articles
4012104005	Retreaded Tires for M.V.	6813100000	Brake Linings & Pads
4012104015	Retreaded Tires for Light on	6813200000	Friction Materials
4012104025	Retreaded Tires for Bus/Truc	6813810000	Brake Linings
4012104035	Retreaded Tires for Bus/Truc	6813890000	Other Brake Materials
4012105005	Retreaded Radial Tires M.V.	6813900000	Other Friction Materials
4012105009	Retreaded Tires for M.V.	7007110000	Safety Glass
4012105015	Retreaded Radial Tires Bus	7007211000	Windshields
4012105019	Retreaded Tires for Lt. Truck	7007215000	Safety Glass
4012105025	Retreaded Radial Tires Bus	7009100000	Rear-View Mirrors
4012105029	Retreaded Tires for Bus/Truc	7320100000	Leaf Springs
4012105035	Retreaded Radial Tires Bus	7320201000	Helical Springs
4012105050	Retreaded Tires for Bus/Truc	8301200000	Locks
4012108009	Retreaded Tires for M.V.	8302103000	Hinges
4012108019	Retreaded Tires for Lt. Truck	8302300000	Other Mountings
4012108029	Retreaded Tires for Bus/Truc	8407342000	Spark Ig Piston Engines
4012108050	Retreaded Tires for Bus, ex.	8407342030	Spark Ig Engine
4012114000	Retreaded Tires for Cars	8407342090	Other Engine
4012118000	Retreaded Tires for Cars	8408202000	Compression Ignition Engine
4012124015	Retreaded Tires for Lt. Truck	8409914000	Pts for Engines
4012124025	Retreaded Tires for Bus/Truc	8409994000	Other Pts for Engines
4012124035	Retreaded Tires for Bus/Truc	8413301000	Fuel Injection Pumps
4012128019	Retread Tire for Lt. Truck	8413309000	Fuel, Lub., Cooling Pumps
4012128029	Retread Tire for Bus/Truck	8413911000	Parts of Fuel Injection Pumps
4012128050	Retread Tire for Bus	8414308030	Compressors/Air Condition
4012194000	Retreaded Tires for Bus, ex.	8414593000	Turbochargers
4012198000	Retread Tire for Bus	8414596040	Fans
4012205000	Used Pneumatic Tires	8414598040	Fans & Blowers
4012206000	Used Pneumatic Tires	8415200000	Air Conditioners
4013100010	Inner Tubes	8415830040	Air Conditioners
4013100020	Inner Tubes	8421230000	Oil or Fuel Filters
4016931010	O-Rings	8421310000	Intake Air Filters

4016931020	Oil Seals	8421394000	Catalytic Converters
4016931050	Gaskets	8425490000	Jacks
4016931090	Gaskets	8426910000	Lifting Machinery
4016993000	Vibration Control	8431100090	Parts of Winches, Jacks
4016995010	Mechanical Articles	8482101000	Ball Bearings
4016995500	Vibration Control	8482105044	Radial Bearings
4016996010	Mechanical Articles	8482105048	Radial Bearings
6813100050	Brake Linings & Pads	8482200020	Tapered Roller Bearings
6813200015	Brake Linings & Pads	8482200030	Tapered Roller Bearings
6813200025	Asbestos Friction	8482200040	Tapered Roller Bearings
6813810050	Brk Lngs & Pads, Not Asbest	8482200060	Tapered Roller Bearings
6813890050	Min Sub Friction Materials	8482200070	Tapered Roller Bearings
6813900050	Friction Materials	8482200080	Tapered Roller Bearings
7007110000	Safety Glass	8482400000	Needle Roller Bearings
7007110010	Safety Glass	8482500000	Other Cylindrical Bearings
7007211000	Windshields	8483101020	Transmission Shafts
7007211010	Windshields	8483103010	Camshafts & Crankshafts
7007215000	Safety Glass	8507100050	Storage Batteries
7009100000	Rear-View Mirrors	8507100060	Storage Batteries
7318160010	Lugnuts	8507904000	Parts for Lead Acid Batteries
7318160015	Lugnuts	8507904050	Parts for Batteries
7318160030	Lugnuts	8511100000	Spark Plugs
7318160045	Other Lugnuts	8511200000	Magnetos, Dynamos
7320100015	Leaf Springs	8511300040	Distributors
7320103000	Leaf Springs	8511300080	Ignition Coils
7320106015	Leaf Springs	8511400000	Starter Motors
7320106060	Leaf Springs	8511500000	Generators
7320201000	Helical Springs	8511802000	Voltage Regulators
8301200000	Locks	8511806000	Other Engine Ignition Equip.
8301200030	Steering Wheel Immobilizers	8511906020	Parts for Distributor Sets
8301200060	Other Locks	8511908000	Other Elec Ignition Equip
8302103000	Hinges	8512202000	Lighting Equipment
8302303000	Other Mountings	8512204000	Signaling Equipment
8302303010	Pneumatic Cylinders	8512300000	Sound Signaling Equipment
8302303060	Other Mountings	8512300030	Radar Detectors
8302306000	Other Mountings	8512300050	Sound Signaling Equipment
8407341400	Engines	8512402000	Defrosters
8407341540	Engines	8512404000	Windshield Wipers
8407341580	Engines	8512902000	Parts of Signaling Equip.
8407341800	Engines	8512905000	Parts of Lighting Equipment
8407342040	Engines	8512908000	Other Pts of Elec Equipment
8407342080	Engines	8517120020	Radio Telephones
8407344400	Engines	8519812000	Cassette Tape Players
8407344540	Engines	8525201000	CB Transmission Apparatus
8407344580	Engines	8525206000	Other Transmission Apparat
8407344800	Engines	8525209020	Radio Telephones
8408202000	Compression Ignition Engine	8525209050	Radio Telephones
8409911040	Cast Iron Parts	8525601010	Radio Transceivers (CB)
8409913000	Aluminum Cylinder Heads	8527210000	Radiobroadcast Receivers

8409915010	Connecting Rods	8527290000	Other Radiobroadcast Receiv
8409915080	Parts	8531800038	Radar Detectors
8409919110	Connecting Rods	8531809038	Radar Detectors
8409919190	Parts	8536410005	Signaling Flashers
8409919910	Connecting Rods	8539100020	Beam Lamp Units
8409991040	Cast-Iron parts	8539100040	Beam Lamp Units
8409999110	Connecting Rods	8544300000	Ignition Wiring Sets
8409999190	Parts	8707100020	Bodies
8413301000	Fuel Injection Pumps	8707100040	Bodies
8413309000	Fuel, Lub., or Cooling Pumps	8707905020	Bodies
8413309030	Fuel Pumps	8707905040	Bodies
8413309060	Lubricating Pumps	8707905060	Bodies
8413309090	Cooling Medium Pumps	8707905080	Bodies
8413911000	Parts of Fuel Injection Pumps	8708100010	Stampings of Bumpers
8414308030	Compressors	8708100050	Bumpers and Parts
8414593000	Turbochargers	8708210000	Seat Belts
8414596040	Fans	8708290010	Stampings of Bodies
8414598040	Fans & Blowers	8708290025	Truck Caps
8415200000	Air Conditioners	8708290050	Parts & Access. of Bodies
8415830040	Air Conditioners	8708290060	Parts & Access. of Bodies
8415900040	Parts of Air Conditioners	8708295025	Truck Caps
8415908040	Parts of Air Conditioners	8708295070	Other Pts & Access of Bodies
8415908045	Parts of Air Conditioners	8708295170	Parts & Access of Bodies
8421230000	Oil or Fuel Filters	8708300010	Mounted Brake Linings
8421310000	Intake Air Filters	8708300050	Brakes & Servo-Brakes
8421394000	Catalytic Converters	8708310000	Mounted Brake Linings
8425490000	Jacks	8708390000	Other Brakes
8426910000	Lifting Machinery	8708401000	Gear Boxes
8431100090	Parts of Winches, Jacks	8708401110	Gear Boxes
8482101000	Ball Bearings	8708401150	Gear Boxes
8482101040	Ball Bearings	8708402000	Gear Boxes
8482101080	Ball Bearings	8708403500	Gear Boxes
8482105044	Radial Bearings	8708406000	Gear Boxes
8482105048	Radial Bearings	8708408000	Gear Box Parts & Access.
8482200010	Tapered Roller Bearings	8708500050	Drive Axles
8482200020	Tapered Roller Bearings	8708504110	Drive Axles
8482200030	Tapered Roller Bearings	8708504150	Non-Driving Axles
8482200040	Tapered Roller Bearings	8708507200	Drive Axles Parts & Access.
8482200050	Tapered Roller Bearings	8708600050	Non-Driving Axles
8482200060	Tapered Roller Bearings	8708700050	Road Wheels & Pts.
8482200070	Tapered Roller Bearings	8708800050	Suspension Shock Absorbers
8482200080	Tapered Roller Bearings	8708805000	Suspension Shock Absorbers
8482400000	Needle Roller Bearings	8708807000	Suspension System Parts
8482500000	Other Cylindrical Bearings	8708915000	Radiators
8483101030	Camshafts and Crankshafts	8708918000	Radiator Parts & Access.
8483103010	Camshafts and Crankshafts	8708925000	Radiators
8501324500	Electric Motors	8708928000	Muffler Parts & Access.
8507100060	Storage Batteries	8708935000	Clutches and Parts
8507304000	Nickel-Cadmium Batteries	8708945000	Steering Wheel, Column

8507904000	Parts for Lead Acid Batteries	8708948000	Steering Wheel Parts & Acces
8511100000	Spark Plugs	8708950000	Airbags for MVs
8511200000	Magnetos, Dynamos	8708990045	Slide-in Campers
8511300040	Distributors	8708990050	Pts & Access.
8511300080	Ignition Coils	8708990070	Wheel Hub Units
8511400000	Starter Motors	8708990090	Other Pts & Access
8511500000	Generators	8708990095	Pts & Access
8511802000	Voltage Regulators	8708995800	Wheel Hub Units
8511806000	Other Engine Ignition Equip.	8708996100	Airbags
8511902000	Parts for Voltage Regulators	8708998015	Wheel Hub Units
8511906020	Parts for Distributer Sets	8708998030	Slide-In Campers
8511906040	Other Parts Engine Ignition	8708998075	Other Pts & Access
8512202000	Lighting Equipment	8708998115	Wheel Hub Units
8512202040	Lighting Equipment	8708998130	Slide-in Campers
8512204000	Signaling Equipment	8708998175	Parts & Access NESOI
8512204040	Signaling Equipment	8716900000	Parts of Trailers
8512300020	Horns	8716905000	Parts
8512300030	Radar Dectector	9029100000	Revolution Counters
8512300040	Sound Signaling Equipment	9029205000	Other Speedometers/Tacho
8512402000	Defrosters	9029900000	Pts & Access of Rev Counter
8512404000	Windshield Wipers	9104000000	Inst Panel Clocks
8512902000	Parts of Signaling Equipment	9401200000	Seats
8512906000	Lighting Equipment Parts	9401901000	Seat Parts
8512907000	Parts of Defrosters	9401901010	Seat Parts of Leather
8512909000	Parts of Windshield Wipers	9401901080	Seat Parts
8517120020	Radio Telephones	9403901000	Parts of Furnitures
8519812000	Cassette Tape Players		
8519910020	Cassette Tape Players		
8519911000	Cassette Tape Players		
8519934000	Cassette Tape Players		
8525201500	Radio Transceivers		
8525206020	Radio Telephones		
8525209020	Radio Telephones		
8525601010	Radio Transceivers, CBs		
8527211005	Radio-Tape Players (CDs)		
8527211010	Radio-Tape Players		
8527211015	Radio-Tape Players		
8527211020	Radio-Tape Players		
8527211025	Radio-Tape Players		
8527211030	Radio-Tape Players		
8527214000	Radio-Combinations		
8527214040	Radio-Combinations		
8527214800	Radio-Combinations		
8527290020	Radio-Receivers AM		
8527290040	Radio-Receivers FM/AM		
8527290060	Radio-Receivers		
8527294000	Radio-Receivers FM/AM		
8527298000	Radio Recievers		
8527298020	Radio-Receivers AM		

8527298060	Radio-Receivers
8531800038	Radar Detectors
8531808038	Radar Detectors
8531809038	Radar Detectors
8536410005	Signaling Flashers
8539100010	Beam Lamp Units
8539100020	Beam Lamp
8539100040	Beam Lamp
8539100050	Beam Lamp Units
8539212040	Halogen Lamps
8544300000	Ignition Wiring Sets
8707100020	Bodies
8707100040	Bodies
8707905020	Bodies
8707905040	Bodies
8707905060	Bodies
8707905080	Bodies
8708100010	Stampings of Bumpers
8708100050	Bumpers and Parts
8708103010	Stampings of Bumpers
8708103050	Bumpers
8708106010	Stampings Parts of Bumpers
8708106050	Parts of Bumpers
8708210000	Seat Belts
8708290010	Stampings of Bodies
8708290025	Truck Caps
8708290050	Parts & Access. of Bodies
8708290060	Parts & Access. of Bodies
8708291000	Inflators & Modules Airbags
8708291500	Door Assemblies
8708292000	Body Stampings
8708295010	Stampings
8708295025	Truck Caps
8708295060	Other Parts
8708301090	Brakes and Parts
8708305020	Brake Drums
8708305030	Brake Rotors
8708305040	Brake Linings
8708305090	Brake Parts
8708315000	Mounted Brake Linings
8708391090	Brakes & Parts
8708395010	Brake Drums & Rotors
8708395020	Brake Drums
8708395030	Brake Rotors
8708395050	Brakes & Servo-Brakes
8708401000	Gear Boxes
8708401110	Gear Boxes
8708401150	Gear Boxes
8708402000	Gear Boxes

8708405000 Gear Boxes
8708407000 Cast Iron Parts, Gear Box
8708407550 Parts, Radiators
8708503000 Drive Axles
8708505000 Drive Axles
8708505110 Drive Axles
8708505150 Non-Driving Axles
8708506100 Drive Axles
8708506500 Non-Driving Axles, NESOI
8708507900 Non-Driving Axles Parts
8708508000 Drive Axles
8708508100 Cast Iron Parts, Drive Axles
8708508500 Parts, Drive Shaft
8708508900 Parts, Drive Axles
8708509110 Spindles of Non-Driving Axle
8708509150 Non-Driving Axles Parts
8708509300 Cast Iron Parts, Drive Axles
8708509500 Parts, Drive Shaft
8708509900 Parts, Drive Axles
8708605000 Non-Driving Axles
8708608010 Spindles
8708608050 Non-Driving Axles
8708704530 Road Wheels
8708704545 Road Wheels
8708704560 Wheel Rims
8708706030 Wheel Covers
8708706045 Wheel Covers & Hubcaps
8708706060 Parts & Access. for Wheels
8708708010 Wheels
8708708015 Wheels
8708708025 Wheels
8708708030 Wheels
8708708035 Wheels
8708708045 Wheel Rims
8708708050 Parts & Access. for Wheels
8708708060 Wheel Covers & Hubcaps
8708708075 Parts & Access. for Wheels
8708801300 Suspension Shock Absorbers
8708801600 Suspension Shock Absorbers
8708803000 Suspension Shock Absorbers
8708804500 Suspension Shock Absorbers
8708805000 Suspension Shock Absorbers
8708806000 Cast Iron Parts, SS
8708806510 Beam Hanger Brackets
8708806590 Parts for Suspension System
8708915000 Radiators
8708917000 Cast Iron Parts, Radiators
8708917510 Radiator Cores
8708917550 Parts, Radiators

8708925000 Mufflers
8708927000 Cast Iron Parts, mufflers
8708927500 Parts, Mufflers
8708935000 Clutches & Parts
8708936000 Clutches
8708937500 Parts of Clutches
8708945000 Steering Wheels, Columns
8708947000 Cast Iron Parts
8708947510 Steering Shaft Assembly
8708947550 Parts, Steering
8708950500 Inflators
8708952000 Parts, Airbags
8708993000 Cast Iron Parts
8708995005 Brake Hoses
8708995010 Steering Shaft Assemblies
8708995020 Wheel Hub Units
8708995030 Beam Hanger Brackets
8708995045 Slide in Campers
8708995060 Radiator Cores
8708995070 Cable Traction Devices
8708995080 Parts
8708995085 Parts
8708995090 Parts
8708995200 Cast Iron Parts
8708995500 Vibration Control Goods
8708995800 Wheel Hub Units
8708996100 Airbags
8708996400 Half Shafts & Drive Shafts
8708996700 Parts (joints?)
8708996710 Universal Joints->01
8708996720 Universal Joints- >01
8708996790 Other Joints->01
8708996810 Parts Pwr Tms, Univ Jnts
8708996820 Parts Pwr Tms, Univ Jnts
8708996890 Parts Power Train
8708997030 Beam Hanger Brackets
8708997060 Suspension System Parts
8708997330 Steering Shaft Assemblies
8708997360 Parts for Steering Systems
8708998005 Brake Hoses of Plastics
8708998015 Wheel Hub Units
8708998045 Radiator Cores
8708998060 Cable Traction Devices
8708998080 Parts
8708998105 Brake Hoses- Plastic
8708998115 Wheel Hub Units
8708998160 Cable Traction Devices
8708998180 Parts
8716905010 Axles & Parts for Trailers

8716905030	Wheels for Trailers
8716905050	Parts for Trailers
8716905060	Parts for Trailers
8718995025	Wheel Hub Units
9029104000	Taximeters
9029108000	Revolution Counters, Odom.
9029204080	Other Speedometers, Tach.
9029902000	Parts & Access of Taximeters
9029908040	Parts & Access of Speed/Tac
9029908080	Parts & Access of Odometers
9104002510	MVT & Cases Panel Clock
9104004000	Instrument Panel Clocks
9104004510	Movements of Inst. Clock
9401200000	Seats
9401200010	Child Safety Seats
9401200090	Seats
9401901000	Seat Parts
9401901010	Seat Parts of Leather
9401901020	Seat Parts of Textile
9401901080	Seat Parts
9401901085	Seat Parts
9403406000	Wooden Furniture for M.V.
9403506000	Wooden Furniture for M.V.
9403901000?	Furniture
9403901040	Parts of Furniture for M.V.
9403901050	Parts of Furniture for M.V.
9403901080	Parts of Furniture for M.V.
9403901085	Parts of Furniture for M.V.
9802004020	Combust. Engine Repair
9802005030	Value of Repairs on Engines

North American Industry Classification System (NAICS)

335911	Storage Battery Mfg
336211	Motor Vehicle Body Mfg
336311	Carburetor, Piston, Piston Ring, & Valve Mfg
336312	Gasoline Engine & Engine Parts Mfg
336321	Vehicular Lighting Equipment Mfg
336322	Other Motor Vehicle Electrical & Electronic Equipment Mfg
336330	Motor Vehicle Steering & Suspension Component
336340	Motor Vehicle Brake System Mfg
336350	Motor Vehicle Transmission & Power Train Parts Mfg
336360	Motor Vehicle Seating & Interior Trim Mfg
336370	Motor Vehicle Metal Stamping
336391	Motor Vehicle Air-Conditioning Mfg
336399	All Other Motor Vehicle Parts Mfg

Table 1

	2002		2003		2004		2005		2006	
	Val	Chg*	Val	Chg*	Val	Chg*	Val	Chg*	Val	Chg*
All Employees	14,864,262	-7.5%	13,872,958	-6.6%	13,384,078	-3.5%	13,161,860	-1.7%	12,869,344	-1.3%
Employee Payroll (\$1,000)	575,185,127	-3.0%	567,602,406	-1.3%	569,703,575	0.4%	580,358,985	1.8%	592,343,060	2.1%
Production Workers	10,319,528	-8.0%	9,756,281	-5.4%	9,385,150	-4.1%	9,235,835	-1.6%	9,179,071	-0.6%
Production Worker Hours (1,000)	29,431,721	-8.7%	19,853,692	-32.9%	19,283,617	-2.9%	19,655,600	1.9%	18,786,191	-4.5%
Production Worker Wages (\$1,000)	336,540,063	-7.7%	330,460,113	-1.8%	332,273,474	0.7%	337,890,875	1.6%	344,335,109	1.9%
Value of Industry Shipments (\$1,000)**	3,914,719,163	-1.3%	4,015,387,243	2.6%	4,308,970,620	7.2%	4,742,079,879	10.1%	5,018,993,474	5.9%

Statistics for All U.S. Manufacturing Establishments

Source: Annual Survey of Manufacturers, 2006. U.S. Department of Commerce, Bureau of the Census. ** From Previous Year

* % Industry Shipments are products shipped by industry establishments.

Table 2

	2002		2003		2004		2005		2006	
	Val	Chg*	Val	Chg*	Val	Chg*	Val	Chg*	Val	Chg*
All Employees	763,105	-1.6%	712,864	-6.6%	686,627	-3.7%	661,268	-3.6%	628,430	-5.0%
Employee Payroll (\$1,000)	33,662,404	2.2%	33,189,602	-1.4%	33,192,112	0.0%	31,847,957	-4.0%	30,632,238	-3.8%
Production Workers	605,016	-1.7%	557,269	-7.8%	536,579	-3.6%	515,023	-4.1%	480,027	-5.0%
Production Worker Hours (1,000)	1,309,273	-3.3%	1,157,384	-11.5%	1,121,885	-3.1%	1,090,500	-2.8%	1,012,752	-7.2%
Production Worker Wages (\$1,000)	24,593,055	3.9%	24,022,454	-2.3%	24,011,281	0.0%	22,751,447	-5.2%	21,691,146	-4.8%
Value of Industry Shipments (\$1,000)**	212,537,954	11.4%	210,841,156	-0.8%	212,079,070	0.5%	216,900,592	2.3%	214,003,641	-1.3%
Value of Predicted Shipments (\$1,000)***	203,595,011	8.0%	202,394,646	-0.6%	204,113,993	1.2%	208,448,366	1.8%	206,000,063	-1.2%

Statistics for U.S. Motor Vehicle Parts Manufacturing, NAICS 336211 and 3363

Source: Annual Survey of Manufacturers, 2006. U.S. Department of Commerce, Bureau of the Census. ** From Previous Year

* % Industry Shipments are products shipped by industry establishments. *** From Previous Year

** From Previous Year

Table 3

U.S. Exports of Automotive Parts (\$millions)	
Parts Exports	48,794 -7.3%
All Export Commodities	731,026 -6.3%
% Share	6.8%
	-1.0%
	7.2%
	6.1%
	5.7%
	-7.2%
	6.4%
	-3.6%
	6.1%
	-5.5%
	5.7%
	-6.9%
	5.3%
	-4.8%
	-17.6%
	11.8%
	12.1%
	1,162,709
	1,162,709
	14.7%
	10.8%
	10.8%
	1,027,143
	12.8%
	904,380
	12.8%
	35,054
	35,054
	4.6%
	4.6%
	58,684
	6.9%
	57,476
	5.2%
	51,524
	5.2%
	57,476
	-7.2%

Source: U.S. Census Bureau

Table 4

Total World Original Equipment Parts Market	
OE Parts Market (\$millions)	711,808 -6.3%
Total OE Parts per Vehicle (\$)	12,802 -5.0%
	13,637
	13,581
	-2.4%
	12,304
	-9.4%
	727,123
	-7.0%
	542,900
	5.0%
	781,650
	-7.3%
	10,0%
	10,0%
	802,850
	2.5%
	728,058
	7.2%

Source: CESA Industry Review 2007/2008

Table 7

Top 10 Global O&M Suppliers

Rank	Company	Revenue (\$B)	Company	Revenue (\$B)	Company	Revenue (\$B)	Company	Revenue (\$B)	Company	Revenue (\$B)
1	Robert Bosch Corp	18,100	Robert Bosch Corp	18,100	Robert Bosch Corp	18,100	Robert Bosch Corp	18,100	Robert Bosch Corp	18,100
2	Robert Bosch Corp	16,200	Robert Bosch Corp	16,200	Robert Bosch Corp	16,200	Robert Bosch Corp	16,200	Robert Bosch Corp	16,200
3	Robert Bosch Corp	15,200	Robert Bosch Corp	15,200	Robert Bosch Corp	15,200	Robert Bosch Corp	15,200	Robert Bosch Corp	15,200
4	Robert Bosch Corp	14,200	Robert Bosch Corp	14,200	Robert Bosch Corp	14,200	Robert Bosch Corp	14,200	Robert Bosch Corp	14,200
5	Robert Bosch Corp	13,200	Robert Bosch Corp	13,200	Robert Bosch Corp	13,200	Robert Bosch Corp	13,200	Robert Bosch Corp	13,200
6	Robert Bosch Corp	12,200	Robert Bosch Corp	12,200	Robert Bosch Corp	12,200	Robert Bosch Corp	12,200	Robert Bosch Corp	12,200
7	Robert Bosch Corp	11,200	Robert Bosch Corp	11,200	Robert Bosch Corp	11,200	Robert Bosch Corp	11,200	Robert Bosch Corp	11,200
8	Robert Bosch Corp	10,200	Robert Bosch Corp	10,200	Robert Bosch Corp	10,200	Robert Bosch Corp	10,200	Robert Bosch Corp	10,200
9	Robert Bosch Corp	9,200	Robert Bosch Corp	9,200	Robert Bosch Corp	9,200	Robert Bosch Corp	9,200	Robert Bosch Corp	9,200
10	Robert Bosch Corp	8,200	Robert Bosch Corp	8,200	Robert Bosch Corp	8,200	Robert Bosch Corp	8,200	Robert Bosch Corp	8,200

Source: Automotive News. *Calculated estimate. **Automotive News and Manufacturing Strategy Inc. ***ThyssenKrupp Automotive AG

Table 8

Top 10 OEM Suppliers for North America

Rank	Company	Revenue (\$B)	Company	Revenue (\$B)	Company	Revenue (\$B)	Company	Revenue (\$B)	Company	Revenue (\$B)
1	Daimler	18,100	Daimler	18,100	Daimler	18,100	Daimler	18,100	Daimler	18,100
2	Daimler	16,200	Daimler	16,200	Daimler	16,200	Daimler	16,200	Daimler	16,200
3	Daimler	15,200	Daimler	15,200	Daimler	15,200	Daimler	15,200	Daimler	15,200
4	Daimler	14,200	Daimler	14,200	Daimler	14,200	Daimler	14,200	Daimler	14,200
5	Daimler	13,200	Daimler	13,200	Daimler	13,200	Daimler	13,200	Daimler	13,200
6	Daimler	12,200	Daimler	12,200	Daimler	12,200	Daimler	12,200	Daimler	12,200
7	Daimler	11,200	Daimler	11,200	Daimler	11,200	Daimler	11,200	Daimler	11,200
8	Daimler	10,200	Daimler	10,200	Daimler	10,200	Daimler	10,200	Daimler	10,200
9	Daimler	9,200	Daimler	9,200	Daimler	9,200	Daimler	9,200	Daimler	9,200
10	Daimler	8,200	Daimler	8,200	Daimler	8,200	Daimler	8,200	Daimler	8,200

Source: Automotive News. *Calculated estimate. **Automotive News and Manufacturing Strategy Inc. ***ThyssenKrupp Automotive AG

Table 9

World Shipments of the 20 Largest Exporters of Auto Parts (\$US Millions)											
Reporting Country	\$US Millions					% Share					
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007	
Reporting Total	531,721	648,190	735,411	833,645	734,137	100	100	100	100	100	
Germany	76,796	96,535	102,737	110,801	110,999	14.44%	14.89%	13.97%	13.29%	15.04%	
USA	63,922	70,561	74,218	80,173	74,809	12.02%	10.89%	10.09%	9.62%	10.19%	
Japan	48,461	56,127	58,635	59,117	60,760	9.11%	8.66%	7.97%	7.09%	8.28%	
France	35,193	41,168	40,901	46,149	43,903	6.62%	6.35%	5.56%	5.54%	5.98%	
China	20,112	34,390	48,680	68,871	43,202	3.78%	5.31%	6.62%	8.26%	5.88%	
Mexico	26,831	31,415	35,014	40,117	38,131	5.05%	4.85%	4.76%	4.81%	5.19%	
Italy	22,873	28,502	30,426	32,946	34,880	4.30%	4.40%	4.14%	3.95%	4.75%	
Canada	25,144	27,576	30,155	30,480	27,644	4.73%	4.27%	4.10%	3.66%	3.77%	
Spain	16,742	19,518	20,273	21,915	22,892	3.15%	3.01%	2.76%	2.63%	3.12%	
United Kingdom	24,491	23,881	36,007	62,123	20,975	4.61%	3.68%	4.90%	7.45%	2.86%	
Poland	8,578	11,631	13,568	16,728	20,498	1.61%	1.79%	1.84%	2.01%	2.79%	
South Korea	22,144	30,349	34,306	34,654	20,121	4.16%	4.68%	4.66%	4.16%	2.74%	
Czech Republic	9,599	13,046	14,510	16,668	19,656	1.81%	2.01%	1.97%	2.00%	2.68%	
Belgium	11,142	13,641	14,179	14,992	17,379	2.10%	2.10%	1.93%	1.80%	2.37%	
Hungary	6,328	13,733	16,551	20,370	16,824	1.19%	2.12%	2.25%	2.44%	2.29%	
Austria	12,502	12,925	13,764	14,203	15,409	2.35%	1.99%	1.87%	1.70%	2.10%	
Sweden	11,051	12,978	13,588	13,995	12,095	2.08%	2.00%	1.85%	1.68%	1.65%	
Netherlands	7,753	10,172	13,030	12,538	11,939	1.46%	1.57%	1.77%	1.50%	1.63%	
Thailand	4,267	5,736	7,454	9,007	11,769	0.80%	0.88%	1.01%	1.08%	1.60%	
Brazil	6,904	7,993	11,051	12,763	10,373	1.30%	1.23%	1.50%	1.53%	1.41%	

Source: Global Trade Alerts, using OIM H15-6 product list. Sorted by 2007 ranking.

Table 10

NAICS Description	2002		2003		2004		2005		2006		2007		2008		2009	
	Employment	% Change	Employment	% Change	Employment	% Change	Employment	% Change	Employment	% Change	Employment	% Change	Employment	% Change	Employment	% Change
33211 Motor Vehicle Bodies	663	-0.9%	619	-6.6%	643	4.2%	659	2.2%	679	3.0%	648	-4.6%	602	-7.1%	582	-3.3%
3331 Motor Vehicle Parts	738.6	-0.8%	707.8	-3.9%	692.1	-2.2%	678.1	-2.0%	657.7	-3.0%	607.9	-7.1%	544.0	-10.6%	519.0	-4.6%
33311 Motor Vehicle Engines and Parts	18.9	-0.8%	18.2	-3.7%	18.2	0.0%	18.2	0.0%	18.2	0.0%	18.2	0.0%	18.2	0.0%	18.2	0.0%
333111 Carburetors, Pumps, Rops, and Valves	19.9	-6.8%	17.7	-11.1%	18.1	2.0%	18.9	4.1%	19.2	1.3%	18.0	-6.8%	16.2	-15.6%	15.0	-7.4%
333112 Gasoline Engine and Engine Parts	73.1	-3.2%	67.8	-7.3%	64.1	-5.5%	61.5	-4.1%	59.2	-3.8%	56.0	-5.4%	52.2	-6.7%	48.0	-7.9%
33312 MV Electric Equipment	110.1	-8.3%	104.0	-5.5%	100.5	-3.4%	95.6	-4.7%	90.8	-5.0%	79.9	-12.0%	70.3	-12.0%	63.0	-11.2%
33321 Vehicular Lighting Equipment	17.2	-3.4%	17.2	0.0%	16.6	-3.5%	16.8	1.2%	16.2	-3.6%	13.5	-16.7%	12.4	-8.1%	11.0	-11.3%
33322 Other MV Electric Equipment	92.9	-9.7%	86.9	-6.5%	83.8	-3.6%	79.0	-5.7%	74.6	-6.8%	66.3	-11.1%	57.9	-12.7%	49.0	-15.4%
33333 MV Steering and Suspension Parts	47.4	-8.0%	44.6	-5.9%	43.4	-2.7%	43.5	0.2%	42.4	-2.5%	38.0	-10.4%	34.1	-10.3%	31.2	-8.5%
33334 MV Brake Systems	45.3	-2.8%	45.9	1.3%	45.1	-1.7%	42.9	-4.9%	40.3	-6.1%	36.1	-10.4%	31.2	-13.9%	27.0	-30.1%
33335 MV Power Train Components	91.7	-4.2%	91.2	-0.5%	86.7	-6.0%	85.0	-2.0%	81.2	-4.5%	75.3	-6.6%	70.4	-7.7%	65.0	-7.5%
33336 MV Seating and Interior Trim	62.0	-4.9%	62.2	0.3%	66.1	6.3%	64.3	-2.7%	62.7	-2.5%	61.4	-2.1%	55.8	-9.5%	50.0	-10.6%
33337 MV Interior Stamping	105.5	-0.9%	101.9	-3.4%	99.0	-2.6%	96.9	-2.1%	95.6	-1.3%	88.8	-8.1%	77.7	-12.6%	70.0	-10.1%
33338 Other MV Parts	178.5	-4.5%	172.4	-3.4%	172.1	-0.2%	171.7	-0.2%	165.5	-3.8%	158.4	-4.2%	142.8	-9.6%	130.0	-12.5%
Total 33211+3331	801.9	-5.7%	769.7	-4.0%	756.6	-1.7%	744.0	-1.7%	725.6	-2.5%	672.7	-6.9%	604.7	-10.1%	560.0	-9.1%

Source: Bureau of Labor Statistics

Table 11

NAICS	2002		2003		2004		2005		2006		2007		2008		2009		2010	
	Employment	% Change	Employment	% Change	Employment	% Change	Employment	% Change	Employment	% Change	Employment	% Change	Employment	% Change	Employment	% Change	Employment	% Change
Bodies and Body Parts																		
336211	41,771	-4.7%	41,450	-0.8%	40,674	-1.4%	43,779	7.1%	49,366	10.5%	50,702	4.6%	50,702	0.5%	47,321	-6.6%	47,321	0.5%
336360	52,670	-9.2%	53,957	2.4%	53,120	-1.6%	50,029	-5.8%	47,106	-5.8%	47,321	0.5%	47,321	0.5%	47,321	0.5%	47,321	0.5%
336370	112,468	-3.9%	126,137	12.1%	109,023	-13.6%	107,372	-1.5%	89,365	-15.8%	95,389	6.7%	95,389	0.0%	95,389	0.0%	95,389	0.0%
Total	206,909	-5.5%	221,544	7.1%	203,017	-8.4%	201,180	-0.9%	164,867	-18.3%	183,421	11.2%	183,421	0.0%	183,421	0.0%	183,421	0.0%
Chassis and Drivetrain Parts																		
336330	47,015	-7.8%	41,783	-11.1%	39,696	-5.0%	38,223	-3.7%	37,369	-2.2%	35,341	-5.5%	35,341	0.0%	35,341	0.0%	35,341	0.0%
336340	39,729	-12.6%	42,356	6.5%	41,097	-3.0%	39,736	-3.3%	37,158	-6.4%	32,823	-11.5%	32,823	0.0%	32,823	0.0%	32,823	0.0%
336350	68,753	-12.0%	101,828	48.1%	90,688	-10.9%	91,232	0.6%	80,084	-11.8%	76,874	-4.1%	76,874	0.0%	76,874	0.0%	76,874	0.0%
Total	155,500	-11.1%	185,967	19.6%	171,791	-7.6%	169,193	-1.6%	154,611	-8.3%	145,138	-6.4%	145,138	0.0%	145,138	0.0%	145,138	0.0%
Electrical and Electronic Parts																		
336321	14,655	2.6%	14,655	0.0%	14,655	0.0%	14,655	0.0%	14,655	0.0%	14,655	0.0%	14,655	0.0%	14,655	0.0%	14,655	0.0%
336322	94,612	-7.5%	97,111	2.6%	90,643	-6.5%	77,532	-14.7%	80,862	16.5%	72,600	-10.2%	72,600	0.0%	72,600	0.0%	72,600	0.0%
336323	109,477	-8.9%	118,670	8.3%	118,670	0.0%	118,670	0.0%	118,670	0.0%	118,670	0.0%	118,670	0.0%	118,670	0.0%	118,670	0.0%
336391	19,594	-3.9%	19,670	0.4%	19,229	-2.2%	19,423	1.0%	17,011	-12.4%	15,825	-7.0%	15,825	0.0%	15,825	0.0%	15,825	0.0%
Total	129,071	-6.5%	115,981	-10.1%	110,072	-5.1%	96,955	-11.8%	97,909	1.0%	88,445	-8.7%	88,445	0.0%	88,445	0.0%	88,445	0.0%
Engines and Engine Parts																		
336811	16,656	-6.2%	16,656	0.0%	16,656	0.0%	16,656	0.0%	16,656	0.0%	16,656	0.0%	16,656	0.0%	16,656	0.0%	16,656	0.0%
336812	71,879	-9.4%	71,879	0.0%	71,879	0.0%	71,879	0.0%	71,879	0.0%	71,879	0.0%	71,879	0.0%	71,879	0.0%	71,879	0.0%
336813	88,635	-9.0%	88,635	0.0%	88,635	0.0%	88,635	0.0%	88,635	0.0%	88,635	0.0%	88,635	0.0%	88,635	0.0%	88,635	0.0%
Total	177,170	-8.2%	177,170	0.0%	177,170	0.0%	177,170	0.0%	177,170	0.0%	177,170	0.0%	177,170	0.0%	177,170	0.0%	177,170	0.0%
Miscellaneous Automotive Parts																		
336399	169,635	-9.2%	145,521	-13.7%	140,255	-3.6%	139,957	-0.2%	140,392	0.3%	132,339	-5.7%	132,339	0.0%	132,339	0.0%	132,339	0.0%
Total	169,635	-9.2%	145,521	-13.7%	140,255	-3.6%	139,957	-0.2%	140,392	0.3%	132,339	-5.7%	132,339	0.0%	132,339	0.0%	132,339	0.0%
Total	777,774	-8.1%	763,105	-1.9%	712,864	-6.5%	688,626	-3.4%	651,289	-5.3%	628,430	-3.5%	628,430	0.0%	628,430	0.0%	628,430	0.0%

Source: U.S. Department of Commerce, Annual Survey of Manufacturers <http://www.census.gov/inform/asm/home.html>

Table 12

Acquisitions of U.S. Automotive Parts Companies (SIC 3714)										
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Number of all Deals*	47	59	52	33	38	30	30	37	26	32
Value of all Deals* (\$Millions)	3,766.4	11,570.7	18,620.0	6,395.3	1,117.5	12129.5	7516.2	2102.7	789.5	

Source: Thomson Financial, BCM in AIA, Aftermarket, Forecast 2006/2007.

*Includes deals with and without reported values.

U.S. AUTOMOTIVE PARTS TRADE BALANCE, 2000 - 2008
In millions of dollars

Table 13

Region/Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% Chg.
WORLD	-11,719	-15,239	-12,932	-19,002	-25,958	-30,816	-37,100	-36,315	-38,277	-33,142	-13.4%
ASIA and the PACIFIC											
Select ASEAN											
Philippines	-268	-355	-331	-290	-296	-328	-332	-401	-471	-508	7.5%
Singapore	-28	-21	4	9	42	43	53	142	164	255	79.6%
Thailand	-294	-272	-326	-490	-433	-485	-563	-814	-1,030	-1,077	4.6%
Total ASEAN (1)	-1,043	-1,133	-1,135	-1,276	-1,201	-1,367	-1,428	-1,766	-2,253	-2,200	-2.4%
Chinese Economic Area											
China	-1,033	-1,410	-1,501	-1,898	-2,278	-3,249	-4,784	-6,112	-7,498	-8,150	8.7%
Hong Kong	53	30	41	29	5	0	-20	-18	22	50	123.8%
Taiwan	-918	-964	-1,010	-1,217	-1,233	-1,423	-1,634	-1,671	-1,894	-1,891	0.3%
Total Chinese Economic Area	-1,958	-2,330	-2,470	-3,092	-3,516	-4,742	-6,439	-7,808	-9,360	-9,987	6.7%
Select Other Asia and the Pacific											
Australia	316	449	391	416	451	548	551	683	725	773	6.6%
India	-115	-149	-142	-163	-190	-268	-300	-481	-533	-542	1.7%
Japan	-10,853	-12,318	-11,141	-11,213	-11,695	-13,961	-14,999	-13,629	-13,017	-11,940	-8.3%
Korea	-322	-628	-753	-1,051	-1,238	-1,400	-2,148	-3,165	-3,371	-3,474	3.1%
EUROPE											
Select European Union											
Austria	953	826	916	722	275	247	441	530	81	-71	-187.8%
Belgium	258	288	296	304	283	222	163	226	242	246	1.8%
France	-1,022	-767	-753	-843	-956	-870	-915	-983	-512	-442	-13.7%
Germany	-2,502	-2,900	-2,630	-3,355	-4,407	-4,891	-5,330	-5,541	-6,766	-5,715	-15.5%
Italy	-396	-338	-367	-530	-611	-741	-828	-704	-805	-804	-0.1%
Netherlands	141	262	263	246	227	228	277	252	236	146	38.7%
Spain	-208	-180	-178	-248	-286	-331	-264	-288	-211	-141	-33.4%
Sweden	-88	-68	-61	-58	-21	-105	-248	-353	-34	-35	3.7%
United Kingdom	72	51	263	-34	-5	-51	-322	-175	5	140	2479.3%
Total European Union (2)	-2,843	-2,868	-2,327	-3,932	-5,513	-6,394	-7,028	-8,838	-7,840	-6,684	-14.7%
Select Other Europe											
Czech Republic	-33	-48	-78	-114	-141	-149	-218	-218	-308	-356	15.4%
Hungary	-36	-64	-80	-128	-249	-164	-160	-162	-127	-131	3.5%
Poland	4	-29	-29	-42	-78	-82	-84	-62	-78	-38	-51.8%
Russia	12	11	25	15	23	26	43	113	115	227	97.6%
Total Other Europe	-53	-128	-161	-289	-448	-369	-400	-318	-388	-297	-25.3%
WESTERN HEMISPHERE											
Select Andean Community											
Colombia	63	73	66	56	52	89	89	95	104	144	39.0%
Ecuador	17	28	67	46	49	54	77	49	48	68	40.7%
Peru	33	19	23	19	29	26	46	49	79	101	28.7%
Venezuela	183	302	436	138	-23	202	412	567	690	847	28.3%
Total Andean Community (3)	300	426	598	262	109	375	629	767	899	1,175	30.7%
Select Central America											
Honduras	-5	-34	-20	-41	-84	-87	-153	-222	-220	-314	-2.4%
Total Central America (4)	120	69	73	46	-36	-144	-264	-305	-306	-319	4.4%
Select MERCOSUR											
Argentina	57	49	-120	-196	-92	-46	-14	2	40	102	153.8%
Brazil	-905	-847	-510	-821	-995	-1,145	-1,471	-1,622	-1,045	-803	-14.5%
Chile	58	50	46	69	57	59	87	147	103	286	47.8%
Total MERCOSUR (5)	-763	-737	-578	-939	-1,023	-1,126	-1,368	-1,466	-795	-463	-41.7%
NAFTA											
Canada	12,709	11,967	10,585	10,751	8,606	9,751	9,659	11,475	12,125	11,479	-5.3%
Mexico	-7,496	-8,104	-6,170	-6,744	-10,696	-11,800	-13,503	-13,572	-14,520	-11,301	-21.5%
Total NAFTA	5,213	3,864	4,415	2,007	-1,790	-2,049	-3,844	-2,097	-2,394	88	-103.7%
ALL OTHERS	311	244	298	202	124	82	47	110	365	730	100.0%

Source: U.S. Census Bureau
 Prepared by Office of Transportation and Machinery, U.S. Department of Commerce, BEC-602-1410, 11 February 2009
 Note:
 (1) The ASEAN region consists of Brunei, Burma, Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, and Vietnam.
 (2) The European Union countries are Belgium, Germany, France, Italy, Greece, Ireland, Spain, the United Kingdom, Portugal, and Luxembourg.
 (3) The Andean Community consists of Bolivia, Colombia, Ecuador, Peru, and Venezuela.
 (4) Central America comprises Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua.
 (5) The MERCOSUR countries are Argentina, Brazil, Chile, Paraguay, and Uruguay.

U.S. AUTOMOTIVE PARTS EXPORTS, 2000 - 2008
In millions of dollars

Table 14

Region/Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	% Chg
WORLD	53,720	49,784	50,087	48,501	52,828	55,054	58,864	61,954	57,476	-7.2%
ASIA and the PACIFIC										
Select ASEAN										
Philippines	53	29	59	66	71	110	116	117	62	-48.9%
Singapore	135	143	141	142	146	157	236	256	355	-38.9%
Thailand	143	85	96	96	98	97	76	110	116	5.1%
Total ASEAN (1)	402	309	343	385	381	433	499	588	611	7.6%
Chinese Economic Area										
China	225	258	344	510	636	623	615	1,130	803	-21.0%
Hong Kong	91	82	75	75	88	82	103	100	117	16.9%
Taiwan	79	79	77	133	111	96	124	119	78	-34.3%
Total Chinese Economic Area	395	415	495	718	835	802	1,042	1,350	1,088	-19.4%
Select Other Asia and the Pacific										
Australia	700	577	615	656	769	779	675	926	923	-0.4%
India	41	38	39	42	65	73	96	131	199	50.0%
Japan	2,217	2,006	2,295	2,051	1,534	1,449	1,748	1,740	1,546	-11.2%
Korea	454	369	332	309	466	462	570	593	416	-29.8%
EUROPE										
Select European Union										
Austria	1,056	1,117	944	556	487	814	888	623	333	-48.5%
Belgium	385	348	353	353	347	257	352	411	407	-1.0%
France	366	407	355	446	593	833	827	750	716	-4.4%
Germany	974	1,116	941	1,019	1,256	1,379	1,591	1,586	1,711	7.9%
Italy	135	158	122	140	132	130	136	157	169	7.9%
Netherlands	322	329	317	287	306	364	356	346	277	-20.9%
Spain	121	93	102	134	134	272	278	286	219	-17.9%
Sweden	143	127	154	208	241	198	198	233	235	0.9%
United Kingdom	1,241	1,235	1,072	1,051	954	841	672	695	1,024	2.9%
Total European Union (2)	4,848	5,048	4,492	4,345	4,615	5,071	5,501	5,817	5,324	-3.5%
Select Other Europe										
Czech Republic	14	8	11	9	8	18	21	25	31	22.8%
Hungary	33	20	52	67	55	53	73	75	83	10.2%
Poland	13	14	15	17	20	33	47	81	86	41.8%
Russia	16	27	17	25	31	46	116	125	245	95.1%
Total Other Europe	75	69	95	118	114	150	258	287	445	95.2%
WESTERN HEMISPHERE										
Select Andean Community										
Colombia	81	76	69	66	103	108	121	130	169	29.8%
Ecuador	39	67	47	50	55	73	49	49	69	40.3%
Peru	24	33	31	37	38	57	62	88	111	26.1%
Venezuela**	537	595	310	168	362	622	763	746	882	18.2%
Total Andean Community (3)	675	779	461	326	592	869	1,003	1,023	1,247	21.9%
Select Central America										
Honduras	37	32	34	34	36	117	164	175	124	-29.4%
Total Central America (4)	160	142	151	143	202	246	328	359	346	-13.2%
Select MERCOSUR										
Argentina	225	112	37	93	132	154	189	228	248	9.0%
Brazil**	401	444	454	460	565	551	601	722	842	16.6%
Chile	92	79	102	103	123	154	207	259	334	29.3%
Total MERCOSUR (5)	718	647	593	656	819	859	1,015	1,254	1,470	18.1%
NAFTA										
Canada	28,601	28,372	27,668	27,474	29,814	31,238	31,900	32,685	28,903	-14.3%
Mexico**	12,559	12,010	11,306	10,343	11,304	11,407	12,796	13,696	13,900	0.0%
Total NAFTA	42,161	38,381	39,293	37,817	41,219	42,646	44,695	46,381	41,893	-10.0%
ALL OTHERS	858	1,012	887	907	1,008	1,103	1,234	1,627	1,972	21.2%

Source: F.B.I.
 *Based on U.S. Census Bureau
 **Reported by Office of Transportation and Machinery, U.S. Department of Commerce, 202-462-1816, 11 February 2009
 Notes:
 1) Total and 1999 data include transportation to Mexico and Venezuela through its Vincent and Grenadines
 2) The selected European Union countries are Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, the United Kingdom, Finland, and Sweden
 3) The Andean Community comprises Bolivia, Colombia, Ecuador, Peru, and Venezuela
 4) Central America comprises Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua
 5) The MERCOSUR countries are Argentina, Brazil, Chile, Paraguay, and Uruguay
 **1999 data revised to reflect SECTI release re exports undervalued by Chile

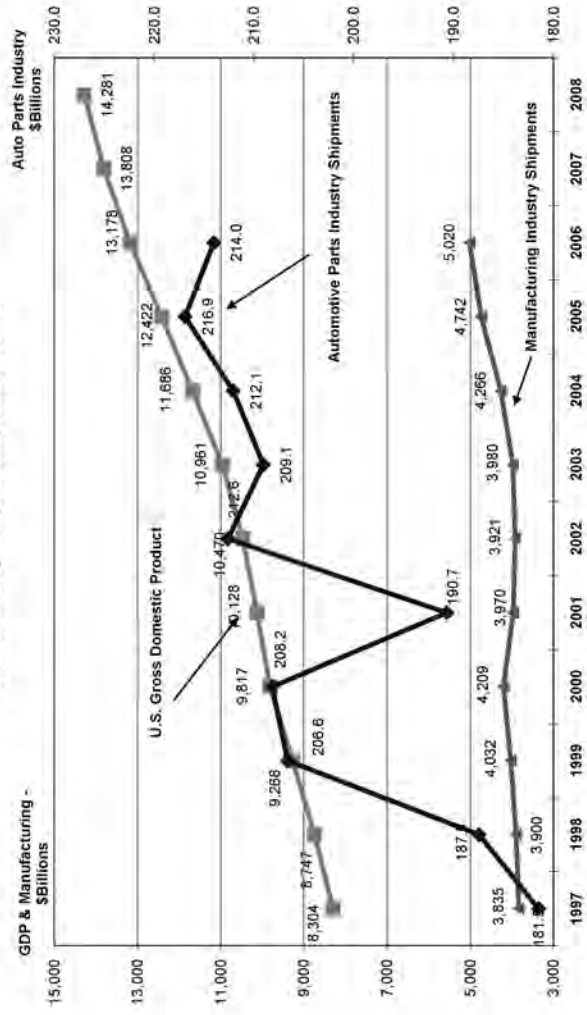
U.S. AUTOMOTIVE PARTS IMPORTS, 2000 - 2008
In millions of dollars

Table 15

Region/Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	%Chg
WORLD	66,359	62,726	65,089	74,469	83,444	92,154	95,179	100,231	90,618	-9.6%
ASIA and the PACIFIC										
Select ASEAN										
Philippines	406	369	349	366	399	441	517	566	568	-3.3%
Singapore	156	147	134	100	106	104	97	92	80	-34.4%
Thailand	415	411	546	529	582	660	692	1,140	1,192	4.6%
Total ASEAN (1)	1,535	1,444	1,619	1,586	1,747	1,860	2,264	2,821	2,811	-0.4%
Chinese Economic Area										
China	1,635	1,758	2,242	2,788	3,884	5,408	6,928	8,628	9,042	4.8%
Hong Kong	57	41	51	80	89	102	121	78	67	-13.8%
Taiwan	1,033	1,093	1,264	1,366	1,604	1,751	1,891	2,003	1,666	-1.9%
Total Chinese Economic Area	2,725	2,885	3,587	4,234	5,577	7,240	8,850	10,709	11,075	3.4%
Select Other Asia and the Pacific										
Australia	251	185	198	205	220	227	192	201	150	-25.4%
India	190	179	202	234	333	463	578	863	738	11.2%
Japan	14,535	13,150	13,696	13,745	15,494	16,448	15,377	14,757	13,406	-8.6%
Korea	1,082	1,122	1,393	1,546	1,666	2,709	3,736	3,965	3,891	-1.9%
EUROPE										
Select European Union										
Austria	230	201	222	281	240	373	358	542	404	-25.4%
Belgium	57	82	85	100	95	134	159	168	160	-4.8%
France	1,133	1,165	1,107	1,302	1,473	1,440	1,320	1,263	1,160	-6.1%
Germany	3,674	3,746	4,336	5,426	6,147	6,709	7,132	8,332	7,426	-11.1%
Italy	474	525	652	751	874	958	844	961	973	1.2%
Netherlands	60	66	71	70	81	86	95	111	131	17.7%
Spain	301	269	349	420	464	537	546	478	359	-24.6%
Sweden	241	188	212	229	345	448	551	259	259	1.2%
United Kingdom	1,160	975	1,106	1,066	1,045	1,126	1,047	964	864	-11.0%
Total European Union (2)	7,716	7,375	8,425	8,858	11,009	12,069	12,339	13,357	12,008	-10.1%
Select Other Europe										
Czech Republic	60	66	125	150	156	236	238	333	367	10.0%
Hungary	97	100	180	315	219	213	225	202	214	6.0%
Poland	42	43	57	95	103	97	109	138	124	-10.6%
Russia	4	2	2	3	5	4	4	11	18	66.1%
Total Other Europe	203	230	364	564	483	550	576	684	742	8.4%
WESTERN HEMISPHERE										
Select Andean Community										
Colombia	8	10	13	16	14	19	26	27	25	-6.3%
Ecuador	0	0	1	1	1	1	0	1	1	55.0%
Peru	4	10	12	8	12	9	13	9	10	4.3%
Venezuela	235	159	172	191	190	211	196	86	35	-59.1%
Total Andean Community (3)	249	179	199	216	217	240	236	124	72	-42.1%
Select Central America										
Honduras	70	63	72	89	173	270	365	365	338	-14.4%
Total Central America (4)	91	68	105	181	345	510	633	704	665	-5.6%
Select MERCOSUR										
Argentina	177	233	235	185	178	168	187	187	148	-22.1%
Brazil	1,248	955	1,275	1,474	1,711	2,022	2,224	1,767	1,735	-1.8%
Chile	42	33	33	46	64	66	60	65	49	-25.5%
Total MERCOSUR (5)	1,473	1,225	1,538	1,708	1,958	2,261	2,481	2,028	1,933	-4.7%
NAFTA										
Canada	17,694	15,787	17,217	19,569	20,484	21,581	20,424	20,539	16,524	-19.5%
Mexico	16,963	18,180	20,069	21,039	23,104	24,910	26,368	28,416	25,261	-11.0%
Total NAFTA	34,657	33,967	37,286	40,607	43,588	46,491	46,792	48,955	41,805	-14.6%
ALL OTHERS	613	714	686	783	927	1,056	1,124	1,262	1,242	-1.6%

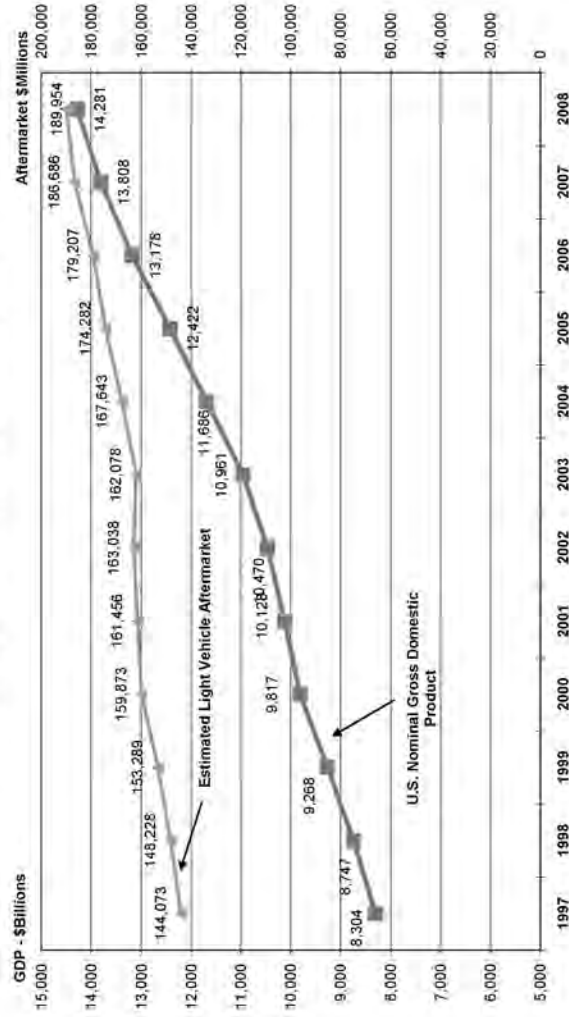
Source: U.S. Census Bureau
 Prepared by Office of Transportation and Machinery, U.S. Department of Commerce, 302-492-1410, 11 February 2009
 Note: 1) The ASEAN region consists of Brunei, Myanmar, Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, and Vietnam.
 2) The selected European Union countries are Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom.
 3) The Andean Community consists of Bolivia, Colombia, Ecuador, Peru, and Venezuela.
 4) Central America comprises Costa Rica, El Salvador, Guatemala, Honduras, and Panama.
 5) The MERCOSUR countries are Argentina, Brazil, Chile, Paraguay, and Uruguay.

Chart 1
Gross Domestic Product, Manufacturing Industry Shipments, and Automotive Parts Industry Shipments, 1997-2008.



Source: U.S. Department of Commerce

Chart 2
 Aftermarket sales track the economy. The aftermarket accounted for 1.7% of the 1997 GDP and an estimated 1.3% in 2008.



Source: U.S. Department of Commerce and Motor and Equipment Manufacturers Association aftermarket model.

Chart 3
U.S. OE and Aftermarket Parts Market, 1997-2008
The U.S. Supplier Share has been declining since 2003.

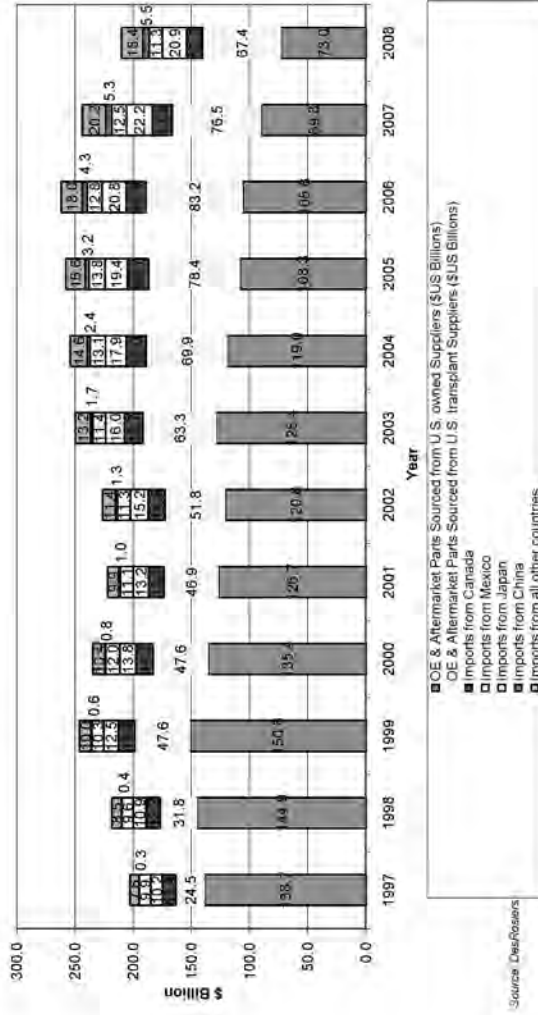
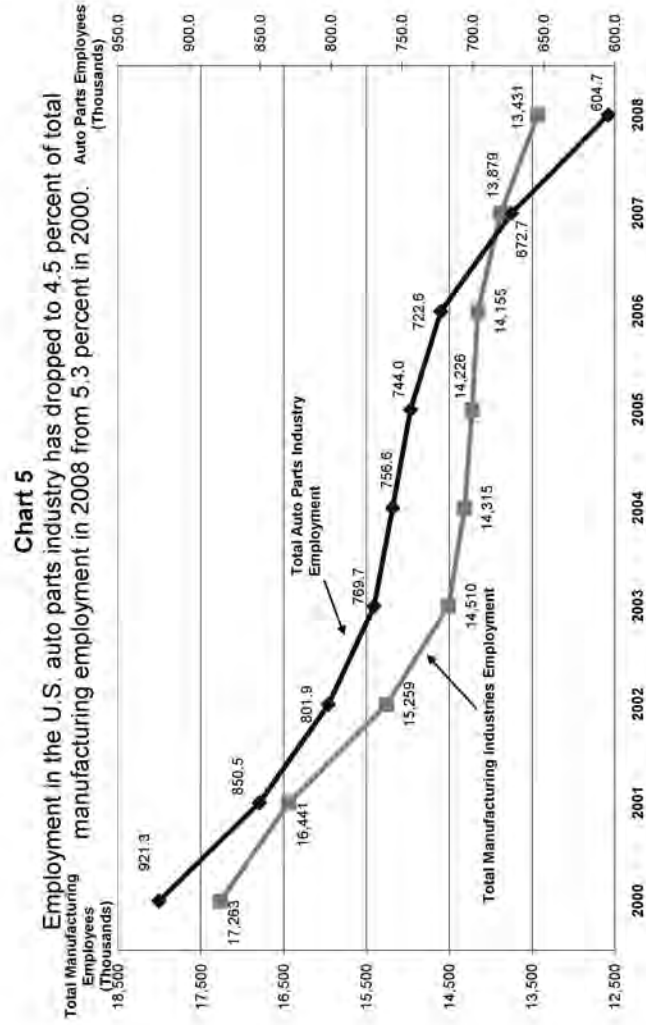
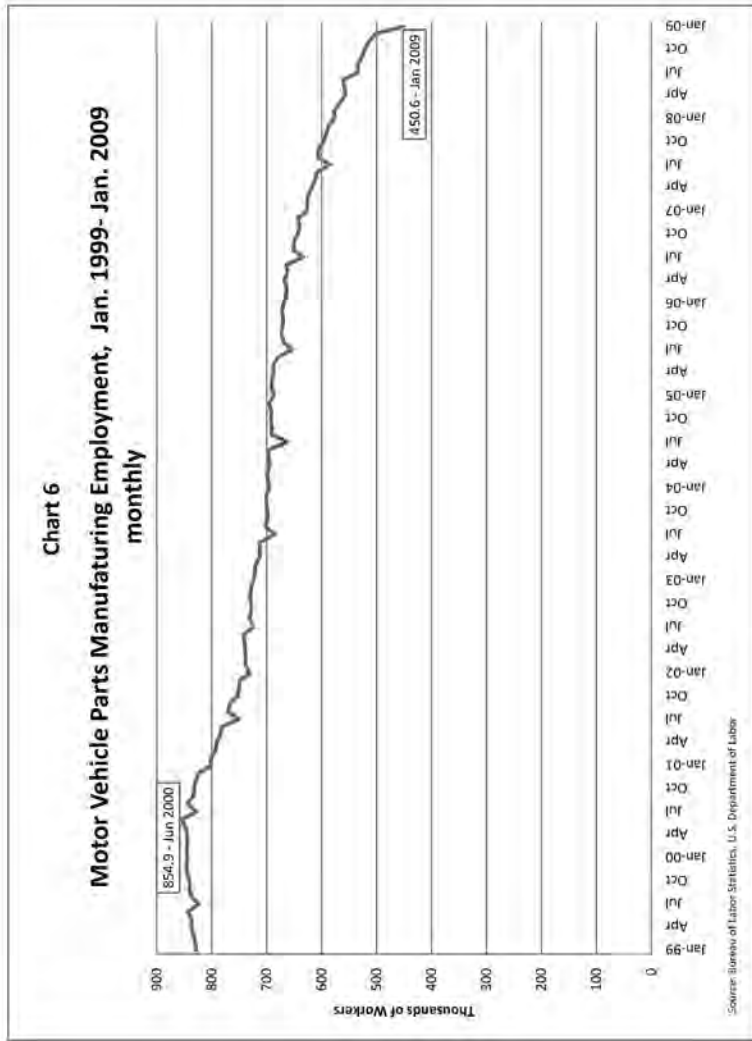


Chart 4





Source: U.S. Bureau of the Census and U.S. Bureau of Labor Statistics



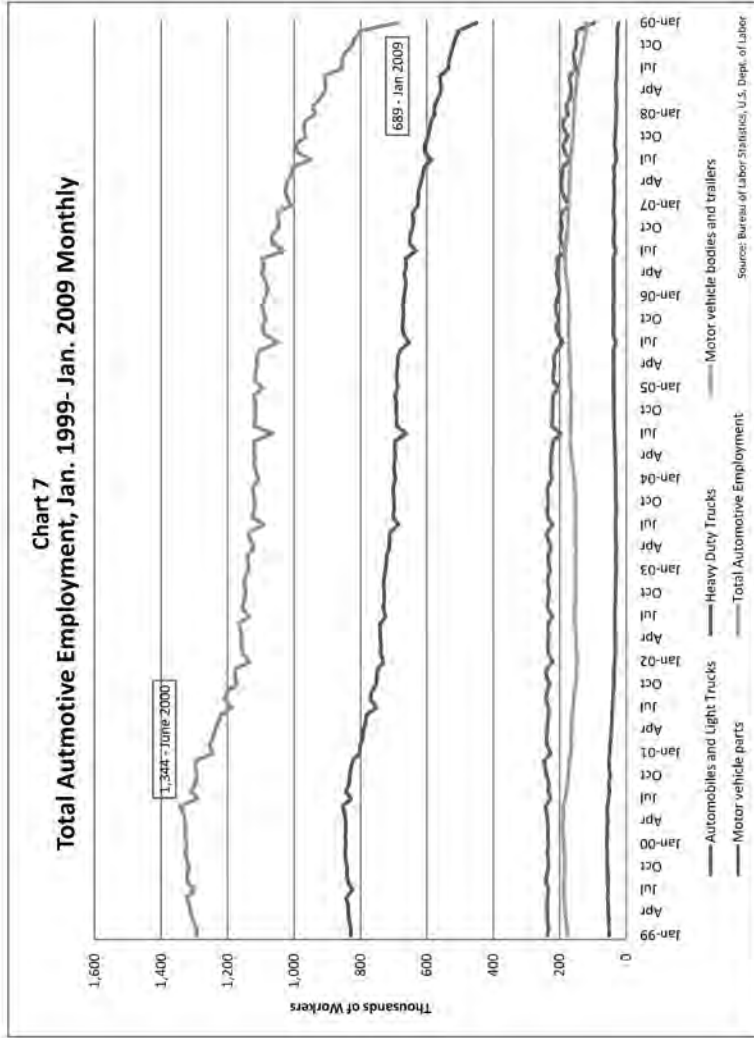
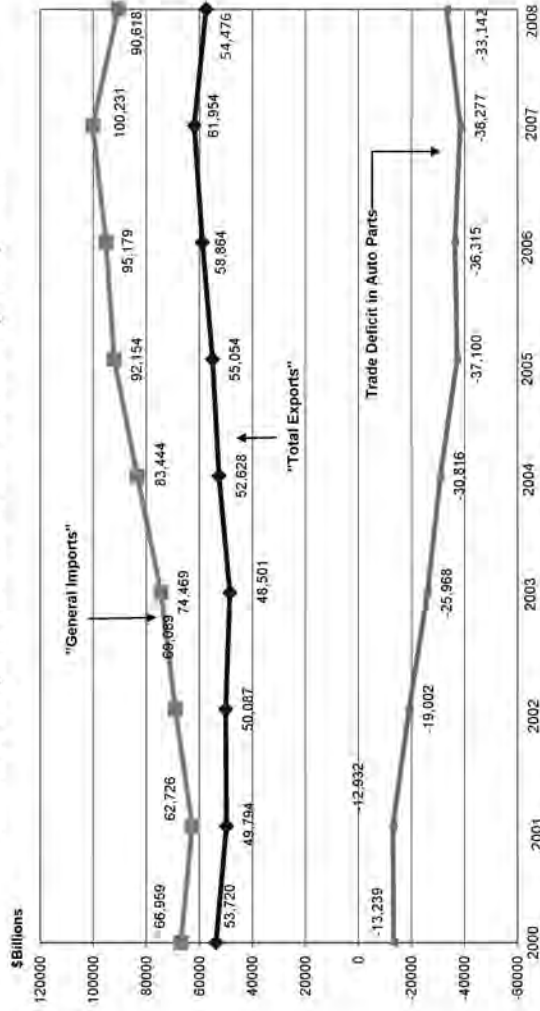
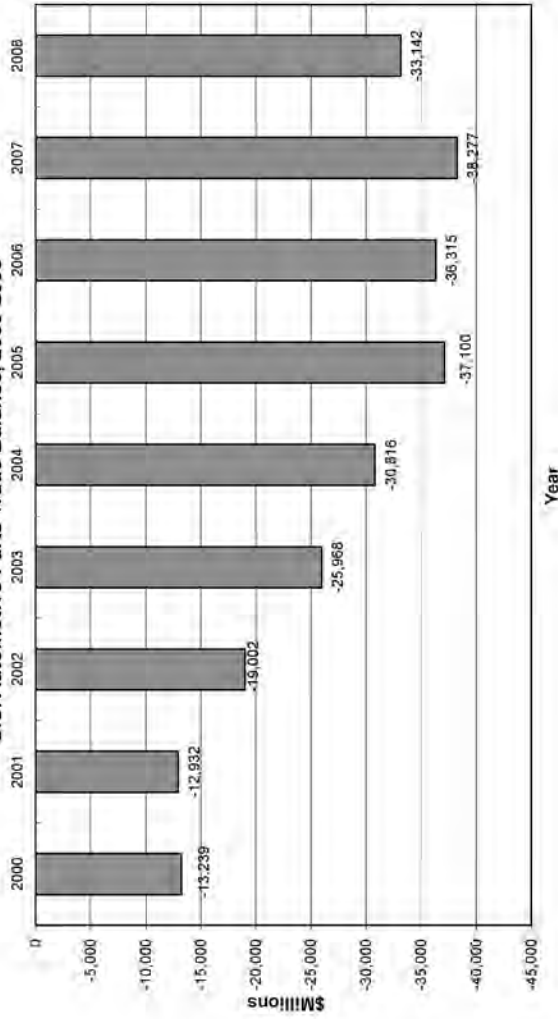


Chart 8
 U.S. auto parts exports fell 7.2% in 2008 and imports fell 9.6%. The result was a decline of the parts trade deficit with the world by 13.4 percent.



Source: U.S. Bureau of the Census, U.S. Department of Commerce.

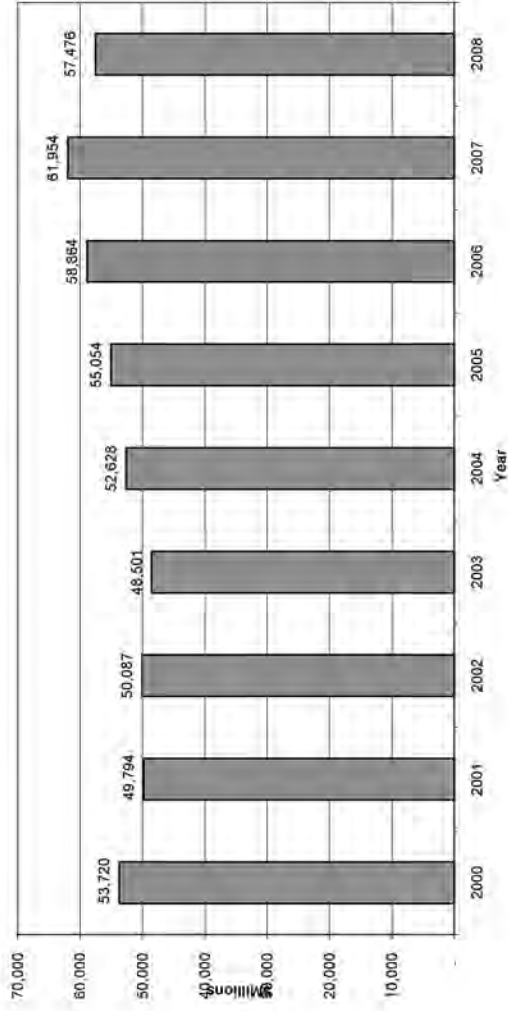
Chart 9
A 13.4 decrease in U.S. automotive parts trade deficit in 2008 was the result of ...
U.S. Automotive Parts Trade Balance, 2000-2008



Source: U.S. Department of Commerce, Bureau of the Census

Chart 10
Exports decreasing 7.2 percent in 2008 ...

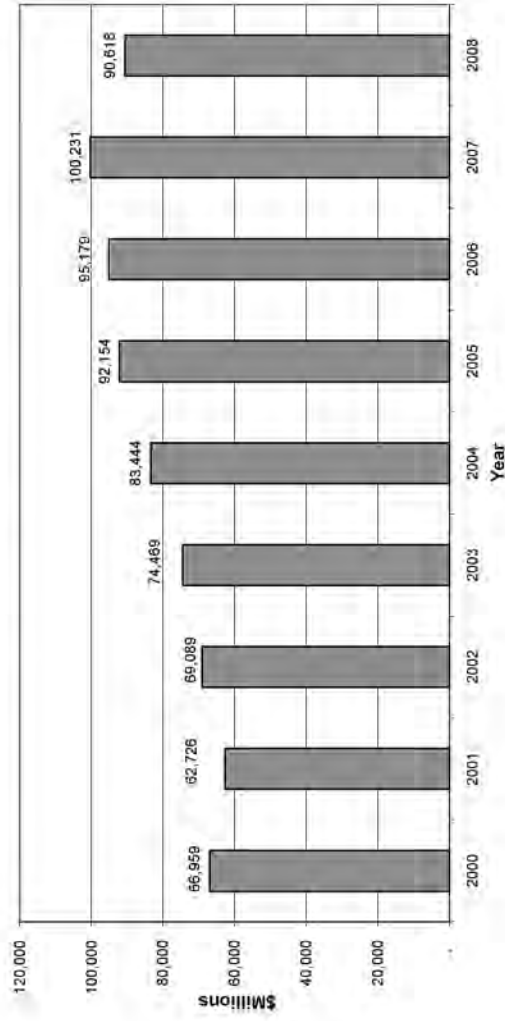
U.S. Automotive Parts Exports, 2000-2008



Source: U.S. Department of Commerce, Bureau of the Census

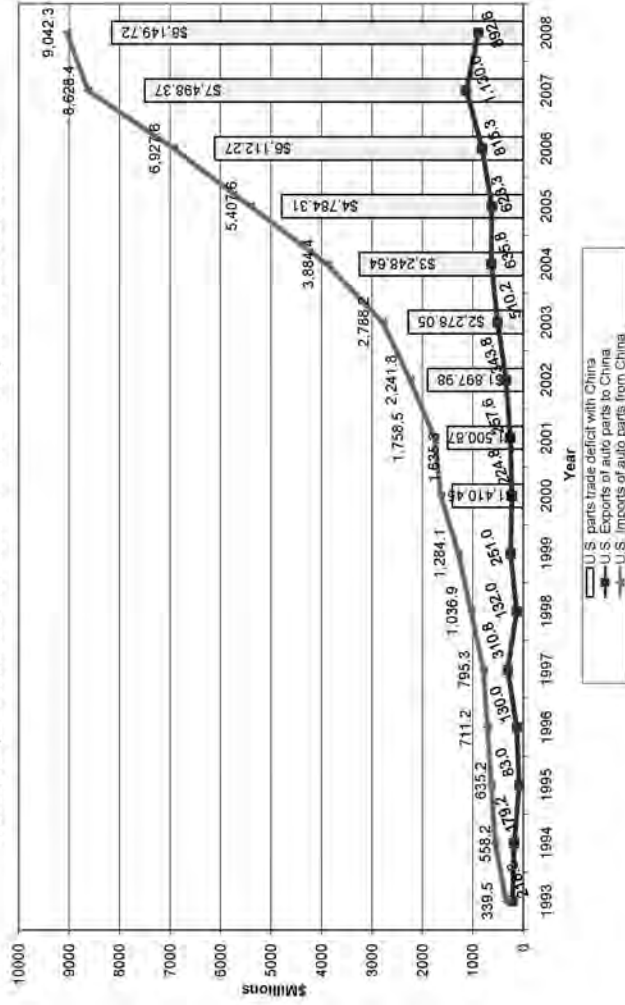
Chart 11
while Imports decreased 9.6 percent in 2008.

U.S. Automotive Parts Imports, 2000-2008



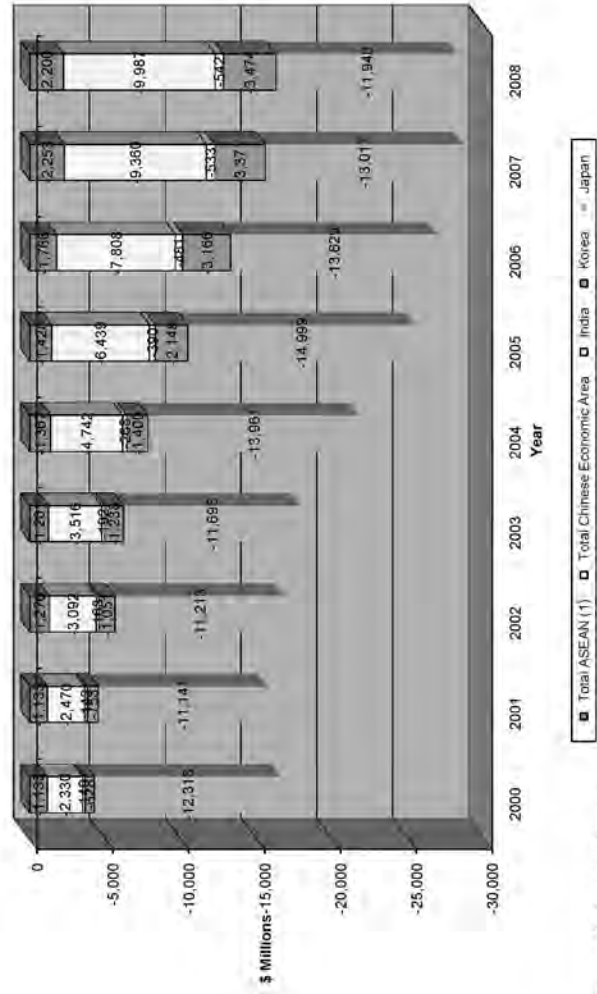
Source: U.S. Department of Commerce, Bureau of the Census

Chart 12
U.S. - China Auto Parts Trade, 1993-2008
In 2008, the parts trade deficit with China increased 8.7 percent over 2007 levels



Source: U.S. Department of Commerce, Bureau of the Census

Chart 13
 The U.S. auto parts trade deficit with Asian countries continues to increase.



Source: U.S. Bureau of Commerce

Non-Original Equipment Aftermarket Label



Ms. LOFGREN. Thank you, Mr. Porcari.

And we will turn to our final witness, Mr. Saidman, for 5 minutes.

**TESTIMONY OF PERRY SAIDMAN,
SAIDMAN DESIGN LAW GROUP**

Mr. SAIDMAN. Thank you very much.

Chairwoman Lofgren, Ranking Member Smith, other Members of the Committee, thank you for inviting me to testify today. My name is Perry Saidman. I am an attorney in private practice, and I specialize in design patent law. My clients rely on me to get strong design protection for their original designs and enforce them against knockoffs.

Now, as a professor at GW Law School, I teach a course in design law. I would like to emphasize that a design patent is a very unique animal because it protects the appearance of a product, how a product looks, not how it works. If you want to protect how it works, you have to go get yourself a utility patent, which is not the subject of this hearing.

Now, cutting to the chase, I think it is a bad precedent to carve out an exception in the design patent law for a particular class of goods—in this case, auto repair parts. The companies who get design patents invest substantial sums in research and development of new designs. They file design patent applications in the U.S. Patent Office, which are carefully examined by specialist design patent examiners who search all previous patents and publications to make sure that the applicant's design is novel, nonobvious, and nonfunctional. These are the statutory criteria for getting a design patent. And because of this rigorous examination, the issued design

patent has a statutory presumption of validity which can only be overcome in litigation by clear and convincing evidence.

Now, the proponents of this carveout for auto repair parts do not say that design patents for these parts are invalid. They do not say that these design patents are not infringed. Well, they can't very well say that, because their knockoffs look exactly like the patented designs. What they are saying is that these valid and infringed design patents should be rendered unenforceable.

Now, why do they say this? Well, they lost a big design patent infringement suit and have been enjoined from selling certain auto repair parts. The problem is, if this bill passes, every industry that loses a design patent lawsuit will petition the Congress to exempt them from having valid and infringed design patents enforced against them. That is why it is a bad precedent.

Now, the proponents also say, if a valid and infringed design patent cannot be enforced against them, we will have open and free competition in auto repair parts, which should bring down the cost to consumers. But the U.S. Supreme Court has said in the *Bonito Boats* case, and I will quote this, "The requirements of patentability embody a congressional understanding implicit in the patent clause itself that free exploitation of ideas will be the rule to which the protection of a Federal patent is the exception," unquote.

So, once the Patent Office decides that a design meets all of the statutory criteria, they issue a patent that gives the owner a time-limited monopoly in that design. This trumps open and free competition and is grounded in the strong public policy stated in the U.S. Constitution, article 1, section 8, clause 8, that the purpose of patents is to promote the progress of science and the useful arts, to encourage innovation, and reward inventors and designers for a limited time.

Now, companies that are in the knockoff business flout this strong public policy. Their activities do not promote the progress of science and the useful arts. They lie back and wait for others to do this, to make a successful unique design. Then they copy the patented design, they are found guilty in a court of law, and they come here asking that they not be held accountable for their actions. The end game of this logic—that free and open competition is the Holy Grail—would result in doing away with patents altogether.

Now, Mr. Gillis today said that an automaker would still have the right to stop competing car companies from using their patented part design. Well, this is a red herring. Companies get design patents to stop knockoffs. They are rarely asserted against legitimate competitors, who are busy designing their own original and distinctive designs. The last thing they want to put out is a copy of a competitor's design.

In conclusion, carving out a particular class of products that undisputedly infringe design patents just because this is advocated by the powerful insurance lobby undermines the rule of law, is tantamount to selective enforcement, and opens the door to yet new exemptions advocated by yet new lobbies in yet new product fields. Pretty soon, the law fades away, and all that is left are the exceptions, just like the Cheshire Cat in Alice's *Wonderland*, which fades away, leaving only its devious smile.

Thank you, and I am happy to answer any questions.
[The prepared statement of Mr. Saidman follows:]

PREPARED STATEMENT OF PERRY SAIDMAN



March 19, 2010

**Re: Written Statement for Committee on the Judiciary
"Design Patents and Auto Replacement Parts"**
Hearing – March 22, 2010 – Rayburn House Office Building,
Room 2141, 3:30 pm

Chairman Conyers, Ranking Member Smith, and members of the Committee:

My name is Perry Saidman, and I am a native Washingtonian. In addition to my work as a law professor teaching design law at G.W. Law School, and my work on design rights committees of many professional organizations, I am a patent attorney in private practice primarily in the area of design patent law. It is fairly well known that I represent clients who obtain and enforce their design patents against knock-offs and infringers. Although I am not giving testimony today as a representative of any of my clients, I do know that my views on this subject align with the views of at least some of my clients. For example, my client Caterpillar Inc. recognizes the importance of the subject of this hearing and has sponsored several hours of my time over the past few days to prepare my testimony. However, neither Caterpillar nor any of my clients requested or had any editorial involvement in my testimony today.

I first want to give a little background about design patents, how they differ from utility patents, and what an applicant must go through in order to obtain the grant of a design patent from the United States Patent & Trademark Office (USPTO).

A design patent protects only the outward appearance of a product, as shown in the figures of the design patent. Unlike a utility patent, a design patent does not protect the function or structure of the product – only how it looks. In other words, a design patent protects the appearance of a product without regard to how it works, and a utility patent protects how a product works without regard to how it looks. Although it is possible to obtain a design patent and a utility

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**Written Statement of Perry Saidma for Committee on the Judiciary
"Design Patents and Auto Replacement Parts"**

Hearing - March 22, 2010 - Rayburn House Office Building,
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patent on the same product, they protect distinctly different things about that product.

Title 35 of the U.S. Code sets forth the requirements for obtaining both a design patent and a utility patent. Many of the statutory requirements are the same for both types of patents, but there are a few requirements that are exclusive to design patents because of their unique nature.

An industrial designer who seeks a design patent has to file an application with the USPTO. The application must contain a set of drawings that illustrate the design that the applicant wishes to protect, along with a brief description of the drawings, and a short claim that essentially says "I claim what is shown in the drawings".

The USPTO assigns the application to a design patent examiner who is very familiar with products of the type being claimed by the applicant. The design patent examiner conducts a search of the prior art - all designs previously patented or published - to make sure the applicant's claimed design meets the basic statutory requirements of being novel, non-obvious, and not dictated solely by function. These statutory requirements are found in Title 35 of the U.S. Code, particularly 35 U.S.C. 102, 103, 112, and 171. The latter section, 35 U.S.C. 171, is exclusive to design patents, while the remaining three sections - 102, 103 and 112 - apply to utility patents as well.

Only upon meeting these statutory requirements does the examiner allow the application, and the design patent then is allowed to issue.

As a result of having been examined, the issued design patent carries a presumption of validity (35 U.S.C. 282), and later in litigation an accused infringer can only prove invalidity by the high standard of clear and convincing evidence.

However, the most common defense in a design patent infringement suit is not that the patent is invalid, but that the patent is not infringed. That is, an accused infringer most frequently takes the position in litigation that the accused product does not look substantially the same as the patented design.



Written Statement of Perry Saidman for Committee on the Judiciary
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I explain all of this to underscore the pernicious effect of the pending legislation – H.R. 3059. This bill does not say that design patents for repair parts are invalid. Nor does it say that they cannot be infringed. Indeed, there can be no argument that the design patents covering auto repair parts are not infringed because the knock-offs look identical to the patented designs. Therefore, what this bill proposes is that valid and infringed design patents be rendered unenforceable. These are design patents that have been applied for, examined by skilled and qualified USPTO design patent examiners who have determined that the claimed design is novel, non-obvious, and non-functional, and then issued.

And why are we even discussing a bill that proposes this remarkable result? We are here because the proponents of this bill lost a hard fought design patent infringement lawsuit covering auto repair parts, and can no longer make, use, sell or import their knock-offs in the United States.

So, having been adjudicated as an infringer of validly issued U.S. design patents, these companies are asking Congress to carve out an exception to the design patent law for auto repair parts, and render valid design patents covering such parts unenforceable.

Why is this such a bad idea? Because it will encourage every industry that loses a design patent lawsuit to petition the Congress to do the very same thing: to carve out an exception to their industry so that their infringement will not be actionable, so that they can continue to make, use, sell and import their infringing products without fear of liability to the design patent owner.

The main argument of the proponents of this legislation seems to be that consumers will greatly benefit from the abolishment of design patent protection for auto repair parts, because the resulting competition will create lower prices for the parts. Of course, the insurance companies are on board because they will make more money if they can buy auto repair parts more cheaply than they do now. Will they pass their savings on to their policy holders, or to their shareholders?



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The trouble with this argument – open and free competition in patented products will result in lower prices – is that it's true for every patented product made. There is almost no industry whose products or services will not cost less with increased competition. This argument, therefore, is much broader than an argument that design patents should not be permitted for auto repair parts. It's essentially an argument that patents should be abolished, because patents allow the owner to monopolize a product and therefore reduce competition.

But open and free competition in patented products is an oxymoron: the U.S. Supreme Court has frequently stated that patents are a well-recognized exception to an open and competitive marketplace, an exception that has strong roots in public policy to encourage innovation and reward inventors/designers. For example, here are the words of Justice O'Connor speaking for a unanimous Court in *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, (1989):

The novelty and non-obviousness requirements of patentability embody a congressional understanding, implicit in the Patent Clause itself, that free exploitation of ideas will be the rule, to which the protection of a federal patent is the exception. *Id.* at 151.

The policy behind granting design patents – an incentive and reward to encourage innovation and investment in new designs – would be completely undercut by rendering those design patents unenforceable in the name of open competition and lower prices. In accordance with the U.S. Constitution, a design patent is granted for a limited time, after which it expires, and anyone is then free to make, use or sell the patented design.

This law would set a bad precedent. There is no law on the books that exempts a particular industry or class of patentable designs for protection. The designers and companies who avail themselves of design patents invest substantial sums into research and development of new, non-obvious and non-functional designs. Let's start with the very creative and innovative designers, who draw on many factors, such as their experience, market conditions, design trends, and consumer data, to conceive a design in a particular field. During the design



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process, several different design concepts will often be the subject of focus groups to determine which one evokes the best response from consumers. It is very expensive to develop the chosen design, e.g., engineer a suitable mold, and make sure the resulting product can be manufactured at a reasonable cost. It is therefore not uncommon for some designs to be subject to research and development for several years. Even then, there is no guarantee that any given design will be a commercial success.

In contrast to this, there are companies in the knock-off business, who incur none of these substantial design and development costs. They lie in wait for a design to achieve commercial success. Then, seeing a ready and proven market created by the original designer, the knock-off companies simply copy the original using the most inexpensive methods possible. Their goal is not to contribute to innovation; their goal is to copy and undercut the originator's market.

But many of these knock-off companies are clever. They almost never copy a design exactly; rather, they make a few changes, differences in detail, which they believe will avoid design patent infringement.

The reality is that design patents are rarely used against legitimate competitors, because legitimate competitors design their own products, and do so with the intent of distinguishing their product designs from those of others. In fact, the major use of design patents is to stop knock-offs, to prevent outright copying and theft of original designs. It is simply unfair to those who make large investments in creating new designs to allow them to be knocked-off with impunity.

And yet, this proposal would legalize literal infringement, rendering design patents useless against the most pernicious form of copying – literal knock-offs.

In addition, the theory behind this bill could be applied to other products that are subject to repair and replacement, similar to auto repair parts. Consider razors and razor blades. For example, Gillette's competitors might argue that it is not fair for Gillette to monopolize the secondary market in blades after they have sold the



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original razor. If you own a Gillette razor, they would argue, you have no choice but to buy replacement blades that fit the razor. Now Gillette is known for being a very innovative company, and it comes out with new razor models (similar to car makers) that require new and improved blades to fit. Why aren't the insurance companies also concerned about the monopolization of the secondary market in razor blades? The reason is that razors and razor blades are not insured, and thus don't affect the bottom line of insurance companies.

Similar arguments can be made for pens and pen refills, drills and drill bits, printers and ink cartridges, cell phones and batteries, computers, cables and peripheral devices, and medical equipment and supplies. All of these industries are rife with replacement/repair parts issues, and consumers might well benefit from elimination of all design patents on these parts, which could increase competition and reduce the cost of the parts.

Perhaps insurance companies will next target patents on pharmaceuticals. If those were done away with, or rendered unenforceable, the insurance companies would save enormous amounts of money, as would consumers, by quicker access to low cost generic brands. But if this is done, will the pharmaceutical companies have the incentive to invest in research, development, trials and testing of new drugs?

If consumer advocacy groups are to be consistent in their arguments, the logical extension is to do away with patent protection altogether. Then, there would be open and free competition in all products, which could bring down the cost to consumers.

If each knock-off industry that lost a design patent lawsuit formed a coalition that lobbied Congress to exclude their knock-offs from design patent enforcement, we would be having hearings like this one every week.



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Passage of this bill would be a dangerous precedent because it would encourage other companies and industries that specialize in knock-offs to try and do exactly the same thing.

In other words, my overriding concern is: where do you stop?

This unwarranted diminishment in the value of a design patent should not be given countenance. It must be seen it for what it truly is: to give knock-off companies a free ride on the coattails of legitimate designers.

Very truly yours,

Perry J. Saidman
perry.saidman@designlawgroup.com

Ms. LOFGREN. Thank you very much.
And thanks to all the witnesses for their testimony.
Now is the time when Members can ask questions of the witnesses. And we will try and confine our questions to about 5 minutes. And I will begin.
Mr. Gillis, Mr. Porcari gave a list of five choices that consumers have for crash parts, including salvage parts, approved restoration parts, generic or specialty equipment parts.

Why would these choices not be sufficient to provide competition in the market to keep prices down for consumers?

Mr. GILLIS. It is a good question.

First of all, there really aren't five choices of parts. Two of the part choices that he listed are specious. They do not represent replications of the part, which is what most consumers want. We are not attempting to change the look, the feel, or the fenders or the hoods or the grills.

So the only real choice that a consumer has today is an expensive car company brand part; a salvage part, which is of dubious quality; and, in some cases that Mr. Porcari talked about, a part in which he has licensed the manufacturer of.

And what is very interesting about that alternative is that Ford has entered into a special agreement allowing a company to make its part, is getting paid by that company, yet Mr. Porcari just told you that these parts are not made to Ford's specifications. In other words, they are licensing someone to make their parts, and even they don't care if they meet their specifications. This is the absolute height of hypocrisy.

Ms. LOFGREN. I wonder, Mr. Porcari, going to that licensing situation, you have licensed, according to your testimony, with this LKQ to make and sell crash parts. And you also testified that Ford got a royalty fee out of this arrangement.

How much was this fee? And how is this structured?

Mr. PORCARI. The exact amount of the fee is confidential. But I am able to tell you that we make much less licensing car parts than we do these little toy cars. That is why I brought that here to show you.

Ms. LOFGREN. Was this an exclusive agreement with LKQ?

Mr. PORCARI. Yes, it was. Yes, it was.

And, you know, it was not like there was no infringement going on. There were 28 companies making thousands and thousands of Ford parts. So we didn't license into a vacuum. We licensed dozens of people, making thousands of parts.

The reason it was exclusive was LKQ brought with them these dozens of Taiwanese companies and stopped all of the non-infringers themselves. They had control because they had the pursestrings; they were buying from the Taiwanese.

Ms. LOFGREN. I see.

You know, one of the things that I think is—I was talking to Mr. Smith before he left. It is a hard audience you have up here because I think all of us have cars that have been in crashes. And I will just speak—my daughter totaled my car, but the crash was such that it didn't even set off the airbags. I mean, it was—and because the parts were so expensive, the insurance company had to total the whole thing.

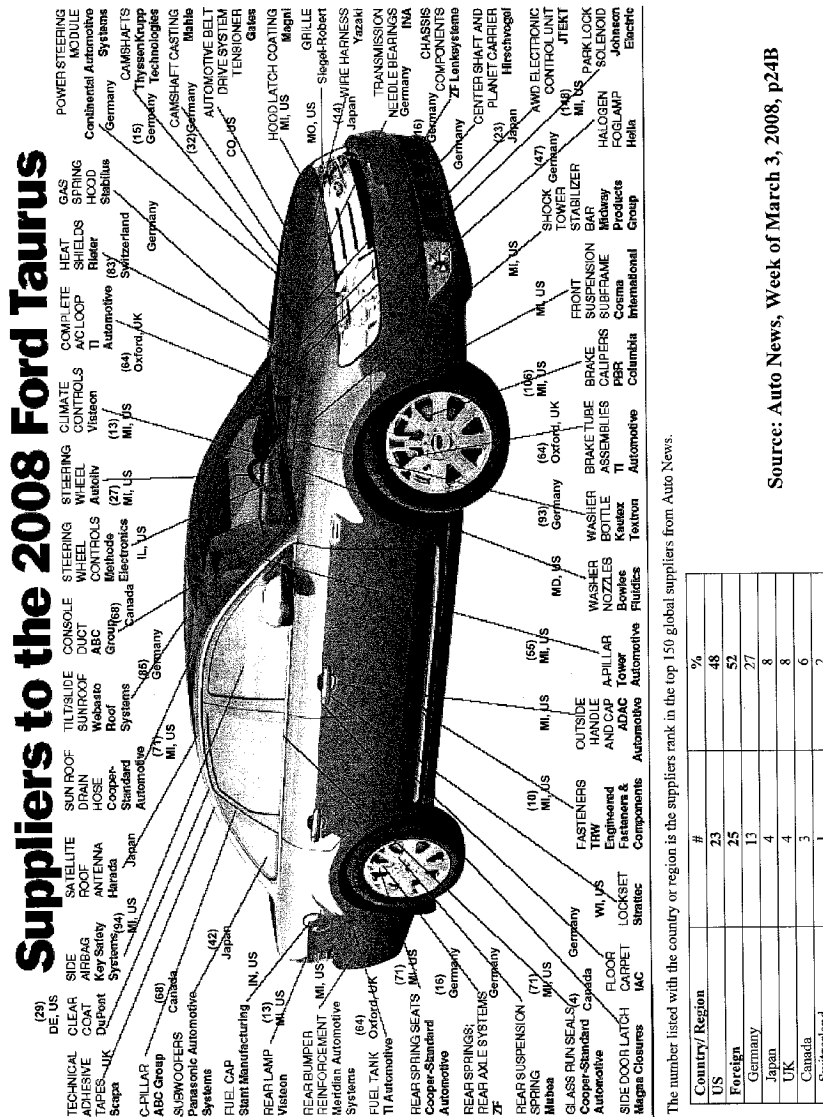
And I was thinking about your comment, Mr. Porcari, about, you know, low-cost foreign manufacturers. But this was a Prius.

And so, I think—and I guess this is to Mr. Gillis, since you have taken a look at the whole market, not just Ford—aren't foreign auto companies also engaging in these design patents? And wouldn't that potentially have the impact of disadvantaging American parts manufacturers?

Mr. GILLIS. Well, absolutely, Congresswoman.

In fact, I would like to submit for the record this picture from Auto News, in which 52 percent of the suppliers to the 2008 Ford Taurus are foreign companies.

[The information referred to follows:]



Source: Auto News, Week of March 3, 2008, p24B

Mr. GILLIS. In addition, this year, Ford's latest models, the 22 models that they are offering the American public, nearly half of them are built in foreign countries.

So, for Mr. Porcari to come here and keep using the word "foreign" as if it is a dirty word is, again, I think, an example of the

extent that the car companies are trying to go to protect these monopolies.

And he mentioned earlier that it cost him \$400 million because of parts that were competitive in the marketplace. Well, guess who saved that \$400 million? We did. And guess who will pay that \$400 million if he gets to patent all of these parts? And that is what we are talking about today.

Ms. LOFGREN. Thank you very much.

And I am not going to go on at too much length; I just thought it was important to note that, as far as—you know, I don't want to hold myself out as an expert on design patents, but I think the most significant case in our courts was the Chrysler case, that the circuit court really helped out about the design patents, and it is only the international decision that has brought this into play. It wasn't the U.S. court system that brought this into play.

Isn't that correct, Mr. Gillis?

Mr. GILLIS. That is true. And, you know, that is what is particularly ironic about this particular situation. Consumers in Europe have a right to these parts. They are able to buy and make choices in the marketplace and are able to get the competition they need to keep the crash repair down.

And what is particularly good about it is, when there is competition, not only do prices go down, but quality goes up. And Mr. Porcari was talking about quality. I mean, with all due respect to the Members of this Committee, to talk about car company quality in this environment, when last year 50 percent more cars were recalled than were even sold and this year we have already recalled almost twice as many cars as have been sold. So, the car companies aren't—

Ms. LOFGREN. I am going to cut you off, because I don't want to set a bad example of going over 5 minutes.

And I am going to turn now to Mr. Coble for his questions.

Mr. COBLE. Thank you, Madam Chairman.

Good to have you all with us.

Mr. Passmore—and I am going to give Mr. Porcari a chance to respond after you respond—as I read Mr. Porcari's comments, he indicates that the auto insurance industry sets the insurance premium prices using Ford parts and then gives the consumers less expensive alternative parts and, furthermore, suggests that the insurance companies perhaps don't inform the consumer when they are getting these alternative parts.

Now, what say you to that?

And then we will hear from Mr. Porcari.

Mr. PASSMORE. Well, I would say neither one of those statements are true.

First of all, regarding the question of rates, rates are set based on historical loss data. And that is based on whatever has been paid for repairs in the past. And I think you heard me say in my testimony, the market for replacement parts is currently 70 percent car company parts and 13 percent aftermarket parts and 12 percent salvage parts. So that is the kind of marketplace that is being reflected in the loss costs that had been paid by insurers up to this point.

And, going forward, if you change that market, you know, if that 70 percent becomes 90 percent, then it is reasonable to assume the loss costs are going to increase. And that could impact rates in the long run.

Mr. COBLE. Mr. Porcari, did I interpret you correctly?

Mr. PORCARI. Yes, you did.

When a new vehicle is released by Ford, before the vehicle is sold we are required to provide to various insurance companies across the country the price of the components that go into making that vehicle as well as the time it takes to repair the vehicle for certain repairs.

That is the rate; those are the prices that insurance companies use to set the policy.

Mr. PASSMORE. Well, I don't know if that is—I don't believe that is true. It is true that there wouldn't be as much loss as for a brand-new model of a vehicle, and I guess you would have to have a reference point at some point, but it is also true that vehicles that have just been—you know, the first year of manufacture, probably don't have aftermarket options available.

Perhaps some others could respond to that.

Mr. COBLE. Well, let me move along before the red light illuminates again.

Is it not true, gentlemen, that all States permit the use of alternative collision repair parts and that most States have laws ensuring disclosure to the consumer when they are used, along with a good number of States that require those parts to be of like kind and quality in form, fit, and finish? Is that correct?

Mr. PASSMORE. That is correct. That is correct. Thirty-nine States require that you have to identify the parts being used on the estimate. Another 37 States require specific disclosure that aftermarket parts have been used; that is after you have already listed them. And 31 States require that your disclosure includes that the warranty on the non-car-company parts is not provided by the car company, it is provided by the company that manufactured them.

Mr. COBLE. Now, Mr. Saidman, I have ignored, not intentionally, you and Mr. Gillis. Do either of you want to get your oars into these waters?

Mr. SAIDMAN. No, that is not my—

Mr. COBLE. Mr. Gillis?

Mr. GILLIS. Yes, I think there are more than adequate consumer protections in every State. And those protections not only are important for consumers but they foster competition.

Mr. COBLE. I have no further questions. Thank you, Madam Chair.

Ms. LOFGREN. The gentleman yields back. We will turn to Mr. Gonzalez, who has been sitting here from the beginning, before Ms. Jackson Lee.

Mr. GONZALEZ. Thank you very much, Madam Chair.

Just real quick, Mr. Saidman, in your written testimony, you read it, "A design patent protects only the outward appearance of a product as shown in the figures of design and so on. Unlike a utility patent, a design patent does not protect the function or structure of the product, only how it looks."

Mr. SAIDMAN. Correct.

Mr. GONZALEZ. Okay. And the courts seem to be agreeing with you. And, yet, we know that Mr. Gillis in, not his testimony, but in his response said, the objective of having the alternatives is replication, is appearance. Right?

Mr. SAIDMAN. Exactly.

Mr. GONZALEZ. Okay. So now that is where Congress comes in. Because the courts are basically saying, if you want to do something about it, go to Congress. And we are here today. So, as Members of Congress, we can actually take a lot of things into consideration if we are going to modify a law that the courts now would be operating under.

You said there is a public policy consideration as to this design patent. In this particular instance, identify the public policy consideration. I mean, why would we have the law? I mean, there has to be a public policy consideration in everything that we do.

Mr. SAIDMAN. Well, the public policy is expressed in the Constitution, to promote progress of the science, to promote the useful arts, to reward innovators, to encourage research and development, and to produce new and original designs. And the deal that is made with the designers is that we will give you a monopoly for a limited period of time in exchange for your efforts and your investment and your original designs. And the public policy is simply to adhere to that.

Mr. GONZALEZ. Congress would have to believe that we are not frustrating that public policy by making some sort of a carveout or exception in this case. Is that correct?

Mr. SAIDMAN. Yes.

Mr. GONZALEZ. Okay. But I think everyone really looks through that argument and doesn't really see that it is quite valid. All they know is that it is probably cornering the market. It is about having a monopoly on replacement parts.

I mean, is that what really is going on? Because I think many Members just look at it—I think Mr. Issa kind of alluded to it—and I am not speaking for him, because he could have meant something totally different. But, you know, you guys are competitors. And right now someone has a corner on the market. And what is the impact? What is the public policy impact? The impact is, the consumer pays a lot more money. I don't think that is really in dispute.

Now, Mr. Porcari, you may dispute that. I still remember we used to say, if you sell me a car for 40,000 bucks, you are selling me the whole package and you are putting it together for me. But if I ask that you sell it to me piece by piece, I would probably have a quarter-of-a-million-dollar car.

I don't know if you agree with that, but what I am trying to point out is just what is practical out there, what is really going on in American society. And the utility of law really should reflect what is going on out there in American society and how the best interests of that society are served.

I happen to think that if something costs a consumer an inordinate amount of money, unnecessary. And I don't think that—I know what you said, Mr. Porcari. I think you said, if it was so unreasonably priced, it would not be affordable. Maybe something

doesn't have to be unaffordable before it is unnecessarily expensive. And that is not good for our economy.

So if you would like to respond to what I think. The public is having this conversation as we speak, if, in fact, they are watching or if they are interested in the subject matter.

Mr. PORCARI. Well, one, we are very proud of our cars and our affordable replacement costs.

I will give you the example that Mr. Gillis used, and that is a Dell laptop or a Dell computer. I have a Dell laptop, a Dell Latitude D630, and I looked up the replacement part cost of that screen. If I were to break my LCD screen, it would cost \$245 to get a replacement screen.

I also have a 2010 Ford SHO Taurus—a great car, made in Chicago, the newer version of the one Mr. Gillis showed you. If I were to dent my fender, that fender has a replacement part cost, manufacturer's retail price, of \$303. But I found it on sale on the Internet—two clicks on Google, anyone could find it—for \$216.47, less than the replacement cost of that Dell laptop screen.

I don't think our parts are overpriced. I think they are affordable, and that is why people buy Ford cars.

Mr. GONZALEZ. Mr. Gillis, I probably have 30 seconds left.

Mr. GILLIS. Okay. Yeah, first of all, it is ridiculous that Mr. Porcari would have to pay \$230 for a flat screen for his Dell, but the reason why he has to is because he can only get that from Dell. And that is our point.

Mr. Saidman admitted that these designs were not to protect the car companies from each other, but, in his words, to stop competition. And that is what we are talking about. I am not a patent attorney, but I just heard him say, "We are not worried about car companies copying each other; we are worried about stopping the competition."

And, from the consumer perspective, we are worried about keeping competition opening. Seventy-three percent of the car parts out there have no competition right now.

Mr. GONZALEZ. Thank you very much.

Ms. LOFGREN. Thank you.

We will turn now to Congressman Issa.

Mr. ISSA. Thank you, Madam Chair.

Mr. Gillis, you made a statement that I just want to make sure we correct for the record. You cited the amount of recalls. If you are not aware—hopefully after the Toyota hearings, you would be aware—that if you copy perfectly cars subject to recall, you will get recallable parts.

So, unless you are implying that these companies have vast engineering that somehow would make them better than the original parts and less likely for a recall, maybe that wasn't the best citing.

Mr. GILLIS. Well, actually, Congressman, it is not a bad idea, because these parts also can be recalled by the U.S. Department of Transportation, the same way car company—

Mr. ISSA. Well, I appreciate that. But if they copied the foot pedal that was a little too long on a Toyota, they would end up hitting the carpet just the same.

You know, I spent 20 years designing and producing for the auto aftermarket. Nobody could be more interested in not allowing a mo-

nopoly of the car companies. I was a participant and a contributor to the unsuccessful Chrysler case in which we tried to define and thought we were accurate that, inside a car dealership, the car company is a monopoly. And so, when you want to sell an aftermarket radio or an aftermarket car alarm, in the case of my company, that the prohibition by the manufacturer and the insistence on only their parts was, in fact, an antitrust violation. No question at all, I would be there for you relative to the aftermarket.

In this case, I have a different concern. And maybe I can use Mr. Porcari as my stalking horse for this. If your interest is related to your creation of an art form or a design—as, by definition, when you go to the Patent Office, you say it is—then isn't it fair to say that the question of the quality of a replacement part, the durability, all of that, is actually not within the purview of this Committee? So would you mind if we only address the portion that is related to the rights in a design patent?

Mr. PORCARI. Congressman Smith, you are correct that—

Mr. ISSA. Thank you, but I am a little less than Congressman Smith. I am Issa. But that is all right.

Mr. PORCARI. Oh, I am sorry. Congressman Issa, I am sorry. I apologize.

You are correct when it comes to enforceability of design patent. But by losing our ability to enforce the patent, we are also losing our ability to control who is making copy of our—

Mr. ISSA. And I want to go to that immediately, because I want to try to address both, if I can, quickly.

Currently, you get design patents for 14 years, 10 years minimum under TRIPS, in the U.S., right? Ten years is a very long time in the cycle of an automobile, isn't it? Basically, at the end of 10 years, you are not interested in making the parts anymore. Wouldn't that be true?

Mr. PORCARI. We are required by law to make the parts for 10 years, but yes.

Mr. ISSA. Yeah, it gets a little tough. You end up in the salvage yard. I have a lot of historical automobiles, and, trust me, I know I can get certain parts for the Model T, but they are pretty limited.

So, let's go through this. If we were to protect your original design, not based on the historic design patent, but to create a category much more similar to the way the French protect dress designs based on fashion, and we were to give you a lesser time, but, in fact, that lesser time was shorter than the cycle of the automobile but long enough for the original first use of what some people might call trade dress, even that goes on in perpetuity, but to that part. So we give you a patent on the whole car for, let's say, 3 years from the origination.

If you absolutely had that, would you be more satisfied that you had that? And, if not, why not?

Mr. PORCARI. Enforcing a design patent is very expensive—millions of dollars. And we have a very good track record—we have sued three times, not two—but even we are at about a 50 percent track record. But—

Mr. ISSA. Okay. But then let me make a follow-up if the “if not, why not” appears to be you are not interested. If, on the other hand, we said to Ford, GM, Chrysler, Toyota, and the rest, look,

in this country we are perfectly willing to allow you to get your royalties, but those royalties cannot be unreasonably withheld, let's say, by everyone who has ISO 9,000, meets the basic criteria for, quote, "quality," a compulsory license that you could not have a monopoly, but you could, like the copyright holders in most cases, you could be guaranteed income but not guaranteed a monopoly, would you be interested in that?

Mr. PORCARI. We would study it, specifically if it included the elimination of these enforcement issues.

Mr. ISSA. Thank you, Madam Chair. I just regret that there is but so little time to ask.

Ms. LOFGREN. Thank you, Mr. Issa.

Ms. Jackson Lee is not present at the moment, so we will go to Mr. Chaffetz and then to Ms. Jackson Lee.

Mr. CHAFFETZ. Thank you, Madam Chair.

I would like to, just so he can finish this, yield my time to Mr. Issa.

Ms. LOFGREN. Of course.

Mr. ISSA. So you were saying, though, that the idea of a compulsory license with provisions that would give you the reasonable control over your license, would that be of interest to you? You said there were other factors. Briefly, can you tell Mr. Chaffetz those?

Mr. PORCARI. Yes, certainly.

Our parts frequently include contribution by suppliers. I cannot give away what I do not own. So, for example, in a headlight, there are dozens, if not hundreds, of patents owned by the supplier on that headlight. I merely create the original appearance, the ornamental appearance of the headlight. How it is made, how it works are not mine to give.

Mr. ISSA. Certainly. So we recognize that utility patents underlying would not be included, and therefore they would have to get those utility rights or they couldn't do the, if you will, design.

Mr. Gillis, are you intrigued by that at all?

And I want to yield back to the gentleman.

Mr. GILLIS. Yes, I am intrigued by that. And the question becomes, will the car companies offer these in the open market at fair and reasonable prices?

Mr. ISSA. Certainly, a licensee would offer them in the open market.

Mr. GILLIS. If I understand, what you are saying is that the car companies would be given the patent rights; however, they would have to share licenses to manufacture those—

Mr. ISSA. Right. Everyone up here on the dais recognizes that, let's say in the music business, that there is a compulsory license. If I want to perform "I've Got You, Babe," for which I would be paid very little and booed, I have—

Mr. GILLIS. I would pay to see you sing.

Mr. ISSA. Thank you. Many might. But I have to pay. And yet, I have a right—there is a compulsory license in which I have a right to get that. That situation exists in other law. It also exists in some transition in the patent rights in health care. So it is not without precedent in U.S. law. It would not be totally new.

But I think, for all of us on the dais who have seen both requests by the manufacturers to have totally exclusive rights, which you

obviously object to, and then the idea that they have no rights or that immediately the product be available, and without control over quality, although we have a limited role in that control over quality and so on, the fact is that confusion as to source and quality and the harm to the Ford emblem as to quality is, in fact, within the purview of this Committee.

And that is why I asked if we could begin, notwithstanding the gentlelady's starting point, talking in terms of a solution, rather than simply two problems that come back to this Committee perennially.

Mr. GILLIS. Well, first of all, again, I have to disclose that I am not a patent attorney. However, there is some question as to whether or not design patents should even have been issued to these particular parts, because they are, in many cases, functional parts of the car. A fender performs a number of functions. So that is one issue that would have to be addressed.

If, in fact, there was consensus that these are legitimately earned and important design patents, then your solution, as long as it opened the market to consumers so that we would have many choices at fair prices, sounds reasonable. But I think first you would have to address the issue of whether or not the patents are, in effect, appropriate in the beginning.

Mr. ISSA. Certainly.

Other comments, particularly—I mean, I think from the dais, we are not prepared to strike down design patents without recognizing that it goes far beyond the auto company right now, with similar—that the Dell notebook has a design patent on it, too.

Please, anyone else that would comment on this direction?

Mr. PORCARI. Sure. A couple of comments. Perry can tell you all about the history of design patent law, but, for example, on functionality versus ornamentality, we make, I believe, 12 different grills that fit an F-150, each looking completely different than the other to distinguish our series. It, by definition, says that these are not functional grills. There are many, many ways to make a grill. And that is not enough. The public can probably buy 40 to 50 aftermarket grills for that F-150.

So I think, from a functionality argument, we clearly proved in court that these patents are not functional, that they are ornamental.

Mr. SAIDMAN. That is, in fact, the test for ornamentality. If the design can be embodied in any of a number of different ways and perform the same function, then it is not dictated by function and is, therefore, ornamental and meets the statutory requirement.

Mr. CHAFFETZ. Thank you, Madam Chair. I see our time is within seconds, so we will come in under, and yield back.

Ms. LOFGREN. All right. The gentleman yields back.

We turn now to the gentlelady from Texas, Congresswoman Jackson Lee.

Ms. JACKSON LEE. Thank you very much, Madam Chair.

And I thank the witnesses for their presence here today.

I am just going to start with Mr. Porcari.

What is the body of law that you are basing your argument on, as you represent the auto manufacturers? Expanding beyond patent, but do you have case law that discerns between the automobile

design, which means if you come out with a flying Thunderbird that really flies and you want no one to know about that—and I would get that real quick.

Mr. PORCARI. You haven't seen our new Ford SHO Taurus. It flies.

Ms. JACKSON LEE. Does it really?

Mr. PORCARI. But—

Ms. JACKSON LEE. Excuse us for a little engagement. I want you to know that your Ford Taurus station wagon took my children around. We had a good time in it.

Mr. PORCARI. Good.

Ms. JACKSON LEE. But let me—what is the body of law beyond patent law for the grills and extra?

Mr. PORCARI. There is, in trademark law—I am not a trademark expert, trade dress—but, within patents, there are three types of patents. There are utility patents that cover the functional aspects of an article. There are design patents that address its ornamental appearance. And then there are plant patents, which are quite similar to design patents; they are directed to the appearance of an asexually reproducing plant.

So we, Ford, did not utilize trade dress or trademark arguments. We focused exclusively on design patents. We actually didn't even bring in utility patents, because we really wanted to clarify the issue and bring it into sharp focus that car parts are protectable by design patents.

Ms. JACKSON LEE. Give me the last one. You had utility, ornamental, and what is the third one?

Mr. PORCARI. Plants.

Ms. JACKSON LEE. So you focus mostly on the actual design and consider the grill and other parts part of that design.

Mr. PORCARI. Right.

Ms. JACKSON LEE. Is there a case law that has recently gone through the courts that has reinforced your position?

Mr. PORCARI. There are—and Perry is much better at giving you case law citations.

Ms. JACKSON LEE. Well, I am going to yield to him in a moment before I go to Mr. Gillis there.

Mr. PORCARI. Our cases—we had three cases in the ITC; one went to decision. In that case, the ITC judge found that the designs were valid and infringed.

I have heard reference to the Chrysler Auto Body case, a Sixth Circuit case I believe, years back, on a summary judgment, found that the Chrysler Dakota fender was functional. That never went to trial; it was done on a summary judgment. And we think the court got it wrong.

Ms. JACKSON LEE. Could I ask your team to provide this Committee with an update on case law, whether it is administrative decisions and/or case law, that you have relied upon?

Mr. PORCARI. Yes.

Ms. JACKSON LEE. I would appreciate that.

Mr. Saidman, would you answer the same question but, in addition to that, act as a—as this is a tutorial, very briefly, and tell me whether or not competitive issues are taken into consideration on the design cases under patent law. Are they basically strictly on

the idea that someone proves that it is unique to them and then a decision is then made?

Mr. SAIDMAN. Well, design patents are part of the 35 United States Code. It is a distinctly different kind of patent than a utility patent. Design patent protects only the look of a product, how it looks, not how it works. And the statutory criteria are that it must be novel, it must be non-obvious to a designer of ordinary skill in that field, and it must be nonfunctional or ornamental, same thing. It is nonfunctional when there are other designs that can embody the same function.

So when those statutory criteria are met, the design patent is issued. And the owner has a 14-year period of exclusivity in that particular design.

Ms. JACKSON LEE. So how would you solve a problem that consumers raise, that the cost is higher, that when they go to their local car fix-it shop or their distributor shop—I guess there is a lot of do-it-yourself going on right now—and the distributors can't get it and the consumer can't get it? How do you respond to that?

Mr. SAIDMAN. Well, I think—

Ms. JACKSON LEE. Couldn't a distributor buy it from the manufacturer?

Mr. SAIDMAN. The distributor gets it from the manufacturer and resells it, I understand, to the end seller.

Ms. JACKSON LEE. Right.

Mr. SAIDMAN. But I am not sure exactly how the chain of distribution works.

Ms. JACKSON LEE. Then let's—and I know that. But I am trying to get to how the distributor can, in fact, be made whole by getting this in a manner that allows them to lower the cost for the consumer.

Mr. SAIDMAN. Well, you know, part of—the fact of the matter is that the patent system creates the ability of the patent owner to control the price within a certain range. They can't flout what the market says, they can't price their goods outrageously, but the way the patent system works is that the patent owners have the ability to exclude others from making, using, or selling the patented item.

That is the way it works across all industries. That is the way it works in pharmaceuticals. You don't have the generic-drug makers coming to Congress and saying, "We want to make generic drugs before the patents on these drugs expire." They sit, they wait, the patents expire, and then they jump into the market, and you have the increased competition.

Mr. ISSA. If the gentlelady could yield?

Ms. JACKSON LEE. I will yield if the Chairwoman would indulge us in additional time.

Mr. ISSA. I have to ask unanimous consent for an additional minute.

Ms. LOFGREN. Without objection.

Ms. JACKSON LEE. And I have a question for Mr. Gillis, so I will yield to you for a moment.

Mr. ISSA. I would only point out that, yes, the generics are in here asking for early rights all the time.

Ms. JACKSON LEE. I was going to say that, as well.

Ms. LOFGREN. And the gentleman yields back.

Ms. JACKSON LEE. That is not his fault for not being keen on what generics are doing in pharmaceuticals.

But let me just quickly ask—Mr. Gillis, I went to the gentleman first so that you could have an opportunity to respond, if you will.

One of the questions, as you respond—because you know my line of reasoning was the impact on consumers—respond to the concern about safety. Maybe it is someone putting on a grill incorrectly, impacting on Ford or someone else negatively when that grill falls off. So why don't you respond to safety and the competition issue?

Mr. GILLIS. Thank you very much, Congresswoman.

There are two safety issues. First and foremost is the fact that many consumers who can't afford these overpriced parts may not replace a mirror, they may not replace certain parts of the car that are important for the safe operation of that vehicle simply because they can't afford to. So that is the number-one problem.

The number-two problem, and it sort of alludes to the Congresswoman's question, these parts, if there are safety issues associated with them, can be recalled by the U.S. Department of Transportation National Highway Traffic Safety Administration. NHTSA does have the ability to take responsibility for these parts. So that really shouldn't be an issue.

It really goes back to your first question of competition. And I have to go back to this drawing right here. When you think about the fact that 73 percent of the parts are only available from one source, that number has been pretty consistent for all of these years, and it is only recently that we have seen this exponential increase in these patents. So that is why we suggest that this is a business strategy and not a strategy to protect those fenders, which they have been making since the beginning of this chart.

Ms. LOFGREN. The gentlelady yields back.

And we have no additional Members—

Ms. JACKSON LEE. I yield back.

Ms. LOFGREN [continuing]. Seeking time, so I would like to thank all of the witnesses for the testimony today.

Without objection, Members will have 5 legislative days to submit additional written questions, which we will forward to the witnesses. And, if that should occur, we would ask that you answer as promptly as you can so that your answers could be made part of the record. And the record will remain open for 5 legislative days with the submission of other material.

I would just like to note, in closing, that the bill which I have introduced—we have had a wide-ranging discussion, but the bill only applies to the enforcement of design patents against repair parts. And, in that case, the repair parts must have the sole purpose of restoring something to their original purpose. So this is really, actually a very narrow bill oriented to a very large problem for consumers. And I just thought it was worth reiterating that point, since we have had a wide-ranging discussion.

And, clearly, Congress has a role to play in the patent law. I was interested to hear the three kinds of patents, but there is still another until *Bilski* is decided: business methods. So sometimes the courts answer the question before the Congress gets around to it, but that doesn't preclude Congress from weighing in when necessary.

So we appreciate your testimony.
And, with that, this hearing is adjourned.
[Whereupon, at 4:53 p.m., the Committee was adjourned.]

A P P E N D I X

MATERIAL SUBMITTED FOR THE HEARING RECORD

**Congressman Henry C. "Hank" Johnson, Jr.
Statement for the Hearing on Design Patents
and Auto Replacement Parts
March 22, 2010**

Thank you, Mr. Chairman, for holding this important hearing on design patents and auto replacement parts today.

This hearing will give us the opportunity to examine whether design patents are necessary to protect automakers investment in the creation of new auto designs, whether design patents on exterior auto parts unnecessarily increase consumer costs, and whether Congressional action is required.

As Chair of the Subcommittee on Courts and Competition Policy, this issue is of extreme importance to me. Balance is essential to this issue. Competition is healthy for our country. Where competition exists, it lowers prices, improves quality, and provides choices for consumers. At the same time, however, the intellectual property system is designed to give innovators a limited monopoly as a means to encourage them to come up with new inventions and products. Thus, by its nature, intellectual property limits competition.

I am deeply concerned about the assertions that have been made. It is said that automobile companies are misusing their design patents on car parts to prevent competition when it comes to getting the parts consumers need to repair their cars. If this is true, and misuse of the patent system is leading to less competition in the replacement parts market, Congress should act to show that such conduct cannot, and will not, be tolerated.

However, it is unclear to me whether patent misuse is occurring, or whether car companies are simply making normal use of the patent system, like any other company is entitled. If it is the latter, assertions made that patents on car parts are standing in the way of competition is really a much broader question of whether intellectual property in general is necessary to spark innovation or is it simply an impediment to competition.

While this question often comes up, I would point out that our founding fathers answered it in the Constitution by giving Congress the power to promote the progress of science and useful arts, by securing for limited times to inventors the exclusive right to their respective discoveries.

Nevertheless, in this economy, our constituents' pockets are already hurting. Allowing design patent rights to displace competition may be further hurting consumers by increasing their repair costs and insurance premiums. This could have a disproportionate impact on low and fixed income consumers. At the same time though, several basic questions must be answered. Will preventing the enforcement of design patents increase new car prices? And, what effect, if any, will an exception to design patents have on the quality and safety of replacement car parts?

I thank the Chairman for holding this hearing, and I hope our witnesses today will be able to illuminate us on these and other questions related to this subject.



**THE HONORABLE HOWARD COBLE
MARCH 22, 2010
COMMITTEE ON THE JUDICIARY**

Several of my constituents have raised concerns over actions by the auto manufacturers to successfully pursue design patent infringement cases before the International Trade Commission against competitive suppliers for several crash replacement parts. This is not good news because after market parts are substantially less expensive.

Although I have not endorsed H.R. 3095 or the European standard for replacement parts, which is also known as the “design clause,” many of my constituents would object to being forced to purchase brand name replacement parts for their vehicles. They expect to have a choice between brand name and after market replacement parts. That being said, I am concerned about the implications this could have on the market for replacement auto parts.





November 18, 2009

The Honorable John Conyers
 Chairman
 Committee on the Judiciary
 2138 Rayburn House Office Building
 United States House of Representatives
 Washington, DC 20515

The Honorable Lamar Smith
 Ranking Member
 Committee on the Judiciary
 2142 Rayburn House Office Building
 United States House of Representatives
 Washington, DC 20515

Dear Chairman Conyers and Ranking Member Smith:

The undersigned coalition of original equipment manufacturers (OEMs), intellectual property organizations and broad-based business associations respectfully write to register our strong opposition to H.R. 3059, which would exempt copies of certain component parts from infringing U.S. design patents.

This legislation would promote unfair competition through the theft of original concepts and ideas. Not only does this bill deny businesses the ability to rightfully protect their intellectual property (IP) but it promotes piracy among all global industries. As a result, this legislation would put American consumers, dealers, distributors, manufacturers, and suppliers at risk.

Manufacturers of unlicensed automobile parts have to meet only one basic threshold, to produce a copy that looks similar to an original part. Those who produce such parts incur no costs attributable to original design, research and development and most importantly, product safety testing. Accordingly, the manufacturer of the original product for whom such unlicensed replacement parts are made does not know how these parts will perform and how their use will impact the quality and integrity of the original product. Automotive collision repairers are very concerned about the quality of replacement crash parts. Permitting this intellectual property infringement also exposes consumers to significant safety, performance or durability risks.

For these reasons, the U.S. Supreme Court repeatedly has denied attempts to overturn these important IP rights. Legislatively denying these rights would not only overturn decades of

judicial precedent, it would also violate IP rights that are protected under the World Trade Organization agreement on Trade-Related Aspects of Intellectual Property Rights. At a time when the U.S. should be seeking enhanced consumer safety through stronger enforcement of our IP laws, Congress should not enact legislation that would eliminate or weaken IP protections.

IP rights are explicitly recognized in the U.S. Constitution, by the U.S. Supreme Court, in our international trade agreements, and by our trading partners. The legislation, as currently drafted, would overturn U.S. legal precedent, endangering American consumers, and threatening U.S. jobs and investment.

We strongly oppose H.R. 3059 and urge you to do so as well.

Sincerely,

Alliance of Automobile Manufacturers (Alliance)
American Automotive Policy Council (AAPC)
American International Automobile Dealers Association (AIADA)
Association of Equipment Manufacturers (AEM)
Association of International Automobile Manufacturers (AIAM)
Automotive Services Association (ASA)
Global Intellectual Property Center (GIPC)
Intellectual Property Owners Association (IPO)
Michigan Intellectual Property Law Association (MIPLA)
National Association of Manufacturers (NAM)
National Association of Minority Automobile Dealers (NAMAD)
National Automobile Dealers Association (NADA)
United Automobile Workers of America (UAW)
United States Hispanic Chamber of Commerce (USHCC)