

Why a Healthy U.S. Domestic Auto Industry Matters

In the last few months, a number of ordinary citizens, government officials and media pundits have asked, “Why should we use government money to bail out Chrysler and General Motors?” The comments continue, “Management has made bad decisions, UAW wages are too high and no one wants to buy their cars. Besides, Toyota, Honda, Nissan, Hyundai and Mercedes all make vehicles in the United States.”

The frustration is correct but the conclusion is not correct. The U.S. needs a healthy domestic auto industry but for reasons that you may not have considered.

Why am I writing this article? I’m writing because a number of people have asked me to. Once I explained my views, most said, “I never realized how important a domestic auto industry was.”

What makes me an expert? My comments are based on some fundamental laws of economics and 40 plus years in the auto business with experience inside a large auto company and experience starting a hybrid-electric vehicle company. I’ve been in technology centers, on factory floors, in boardrooms, in dealerships, in design centers and in dealership service bays. I’ve been involved with some good, some bad and some ugly projects.

So why is a successful domestic auto industry so important? I think three fundamental reasons: (i) ensuring advanced technology is readily available (ii) stimulating growth in other industries (iii) helping ensure national security.

What makes the auto industry different from most other industries is a combination of large scale, complex manufacturing and demands for extremely high levels of reliability and durability, especially compared to other products. Everyone I have ever met who entered the auto industry after time in another industry makes the same comment after 2-3 weeks, “The auto business is much more complicated than I realized.” And the comment usually includes several expletives.

The degree of complexity does not mean “outsiders” should not enter the industry. Far from it. But outsiders need to be cautious about ignoring staff who have toiled inside the companies for many years. Institutional knowledge is very valuable and should not be taken lightly. Clean the water and be careful not to throw out the babies.

ENSURING AVAILABILITY OF ADVANCED TECHNOLOGY. What does the auto industry do that cannot be done by the defense or aircraft industry? The answer is scale. Large scale drives down cost and low cost makes products affordable for many more consumers. While much new technology is developed in defense and aerospace industries, neither industry generates the volume necessary to drive down cost.

Think about the number of military and civilian aircraft built each year. The total number built for the entire year is equal to about one day’s production at one auto plant. And there are more than 20 auto assembly plants in the US. Auto companies produce 15-16,000,000 new cars and trucks in every year, just for the U.S. market.

Thus, for technology to be introduced in cars and trucks – even very expensive ones – cost must drop 1 to 2 orders of magnitude, or more than 90%, from cost acceptable for a defense or aerospace application.

Further, parts on cars must function with essentially no maintenance. Think about how little you maintain your car or truck vs. the number of miles or hours you drive. Yes, you may refuel but how often do you change oil, have a tune-up or overhaul the engine compared to miles driven? Would you fly on a commercial airplane with the same maintenance schedule as you have for your car? Of course not.

Despite the limited maintenance schedule, cars and trucks are expected to operate and last 15-20 years, or more. What other major piece of equipment so widely used in so many different environments lasts that long?

Well, you say, I still don't understand why we need to bail out GM and Chrysler. As a point of clarification, when I talk about the auto industry, I mean more than just assembly plants. The core of the auto industry is primarily component design and manufacturing. The assembly plants get all the glamour but industry guts are in components – electronics, robots, batteries, wheels, frames, tires, steering, foundries for engines and brakes and many other components.

Manufacturing components is where the value is created and where knowledge gained can be transferred to other industries. As a country we often overlook the need to remain competitive in producing components. The US does not need to produce all components for all cars assembled in the US. But it does need to maintain the capability of producing a high percentage of each key component.

STIMULATING OTHER INDUSTRIES. The technology used in autos is directly applicable to many other industries. The demands of the auto design and manufacturing force many suppliers to improve their own technology. A strong domestic auto industry increases the likelihood, although does not ensure, the U.S. is creating, receiving and utilizing the latest technology.

Will foreign auto companies with U.S. assembly plants transfer the latest technology to the U.S.? No. Just as the U.S.-companies do not export their latest technology to other countries. If there is any question about countries keeping technology at home first, one should study technology available in cars sold by Toyota and Nissan in Japan compared to technology available in the US. Frequently the technology is not available in the US for 2 to 3 years after being introduced in Japan.

Further, some technology breakthroughs have a long lasting impact. An example is the effort by GM in the early 1990s to develop and introduce an electric vehicle, EV1. While GM was praised for introducing the car, and skewered when stopping production, the advances and electronics developed for the EV1 program were the foundation for many electronics available in cars and trucks today, nearly 20 years after the EV1 concept car was introduced at the Los Angeles auto show.

Yes, GM deserves criticism for canceling the program. But GM deserves praise for advancing automotive electronics, which in turn led to the use of advanced electronics in many non-automotive applications. The strong domestic auto industry creates advancements in technology that benefit the auto industry and all segments of industry and everyday consumers.

Advanced technology applied in non-auto industries keeps US companies competitive worldwide. Exports create jobs. If you think transportation-driven technology is not important to other industries, think about productivity in agriculture, raw materials, manufacturing, distribution and other industries. Most of the productivity gains were greatly influenced by

demands first met in the auto industry. Without such productivity, the US output and incomes would fall toward lesser developed nations.

Yes, I know, Silicon Valley is great. But the country needs to translate the ideas to generate wealth for the US. Manufacturing generates wealth, services do not. Computers that move information around are not the same as computers used to increase efficiency in manufacturing. Knowledge without manufacturing does not create wealth.

NATIONAL SECURITY. Since foreign-based auto companies do not transfer the latest technology – and why should they – the U.S. will fall behind in technology development for everyday products and manufacturing efficiencies. This in turn will lower potential GDP growth and personal incomes.

More importantly, however, without a higher-volume domestic auto industry to spread cost, will the country be able to afford the cost for developing new technology used primarily for defense and aerospace applications? Probably not unless we raise taxes and lower incomes.

Finally, and let's hope this never occurs again, but what happens if the U.S. needs manufacturing capacity for a large-scale ground war? A domestic auto industry, both assembly and component manufacturers will be critical for rapid conversion from automotive production to defense materiel. Having only assembly plants without domestically sourced components – engines, transmissions, axles, electronics, and so forth – offers no benefit for national security.

Sourcing components manufactured outside the United States has an equal, if not greater, potential negative impact on national security and technology advancement than the assembly of vehicles in the US.

SMART INVESTMENT. Taxpayer dollars to ensure a vibrant domestic auto assembly and component manufacturing industry are dollars well spent – a smart investment. What would the hue and cry be from these same critics of GM and Chrysler if the defense and aerospace industries began outsourcing critical defense weapons systems to such countries as India, China and Japan?

If you still have doubts, name one country worldwide that has sustained growth in GDP and real growth in consumer incomes without a strong manufacturing base built around the strong automobile industry? Call me when you can name one. Supporting a strong domestic automobile industry is smart economics. Charles E. Wilson was correct, when he said many years ago, "What is good for General Motors is good for the country and vice versa."