During the long, slow recovery from the recession, few parts of the American economy have received as much attention as the auto industry. The stabilization of General Motors and Chrysler was one of the biggest and earliest priorities of the Congress and the President. In a time when many industries were in danger, the question was often asked: Why autos?

The President addressed that question in a March 2009 statement:

*We cannot, and must not, and we will not let our auto industry simply vanish. This industry is like no other – it’s an emblem of the American spirit, a once and future symbol of America’s success. It’s what helped build the middle class and sustained it throughout the 20th century. It’s a source of deep pride for the generations of American workers whose hard work and imagination led to some of the finest cars the world has ever known. It’s a pillar of our economy that has held up the dreams of millions of our people.*

The good news is that decisive action has made a real difference. Ford, GM, and Chrysler are returning to profitability and adding workers. But the automakers themselves make up only part of the industry, and the equally important smaller companies that make auto parts and components, and provide more than three quarters of the jobs in the sector (See Figure 1) are seriously threatened.² The traditional link in the industry –

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² Data for Figure 1 are derived by taking the average annual employment for the years 2001-2010 for NAICS Code 3361 (for Motor Vehicle Assembly); and the sum of the average annual employment for NAICS 3363 (for Motor Vehicle Parts Manufacturing) and NAICS 32621 (for Tire Manufacturing).
where employment in assembly and parts manufacturing went hand in hand – is at risk of being severed by imports from China.

The primary reason for the slower recovery of auto parts manufacturing is the rapid growth of Chinese imports, driven by a web of unfair and illegal trade practices. A core American industry and a primary engine of economic growth are being eroded, in a time of persistent high unemployment. It is not too late, however, to revitalize the auto parts industry and provide desperately-needed jobs to the next generation of Americans.

**The Decoupling of the Auto and Auto Parts Industries**

For decades the auto assembly and auto parts manufacturing sector operated in a state of symbiosis. Often, the automakers held partial or controlling interests in parts manufacturers, not just in large companies like GM’s controlling interest in Delphi or Ford’s in Visteon, but in smaller companies as well. For example, the soon-to-be-shuttered New Process Gear works in Syracuse, NY was owned at various times by both GM and Chrysler.

The reason for this connection is obvious: the production of large, complex products such as cars that include a large number of components requires the existence of a robust, diverse supply chain.

Also, there is a clear and direct relationship between research and development and innovation among the parts suppliers and the assemblers. Advances in safety, comfort, technology, and fuel efficiency often arise from the efforts of parts makers. For instance, improvements in fuel economy are, in part, dependent on the production of parts using lighter materials and tires with less rolling resistance.

Thus, for a long time, employment in both parts of the sector rose and fell in tandem. Assembly and parts manufacturing depended on each other’s success. However, in recent years this correlation has begun to
erode. As shown in Figure 2, employment in the auto parts manufacturing sector has been declining at a faster rate than the auto assembly sector.\(^3\) Even as the auto industry stabilized and added jobs from 2009 to 2010 – thanks in large part to governmental actions like the GM/Chrysler resolutions, Cash for Clunkers, and the Recovery Act – auto parts manufacturing recovered much more slowly. Between 2009 and 2010, auto assembly employment rose 3.3% but parts manufacturing employment only rose only 0.1%.

A similar pattern appears when one compares auto parts manufacturing employment to overall manufacturing employment. One would imagine that, if the decline in auto parts manufacturing were simply an example of the overall decline in American manufacturing jobs, the employment path between the two would be very closely correlated. That was the case as recently as the first half of the last decade, as shown in Figure 3.\(^4\) However, there has been a much steeper and more rapid decline in auto parts manufacturing employment from 2006 to 2010 (35%) than in manufacturing as a whole (17%), suggesting that some outside factor is interfering with market forces in the auto parts industry that is specific to it and not equally felt across the entire manufacturing sector.

The rise in auto parts manufacturing employment from 2009-2010 is largely due to policies like the GM/Chrysler resolution and Cash for Clunkers. Even during that period, auto parts manufacturing did not receive the same benefits from those policies that the assembly sector did, suggesting that policies that assume the whole industry rises and falls together are no longer sufficient and that additional policy responses are required to ensure that employment improves across the sector as a whole. Even better would be to restore the historical relationship between final assembly and the entire supply chain and to ensure that free and fair market forces determine economic outcomes. Before either can be done, however, we need to know the reason for the change.

\(^3\) Data for Figure 2 and other employment data points in this section are derived from U.S. Bureau of Labor Statistics annual employment data for NAICS 3363 and NAICS 32621.

\(^4\) Data for Figure 3 are derived from U.S. Bureau of Labor Statistics annual employment data for NAICS 3363 and NAICS 32621 for auto parts manufacturing, and NAICS 31-33 for total manufacturing.
The Roots of Divergence

If parts production in the U.S. is falling off, yet overall auto production is increasing, the parts must be coming from somewhere else. As is the case in so many other manufacturing sectors, the answer is that they are increasingly coming from China. Between 2001 and 2011, the auto parts trade deficit the U.S. runs with China increased 867% to almost $10 billion in 2011 (See Figure 4).  

The U.S. trade deficit in auto parts with China is being driven by a surge of imports of Chinese parts, coupled with almost stagnant growth of U.S. exports to China. Annual U.S. exports to China increased by slightly more than a billion per year between 2001 and 2011, but imports from China increased by almost $10 billion (See Figure 5). This is causing the rapid trade deficit increase shown in Figure 4. The only period where the auto parts trade deficit did not rise was during the global recession period of 2008-2009. In 2010 the trade deficit resumed its steady climb at a level that suggests that the 2009 data were an aberration, and the deficit with China is continuing to accelerate. The most recent data available, for January to October 2011, show a trade deficit on pace to reach $9.9 billion by the end of 2011. This is 21% more than the 2010 deficit and 867% more

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5 Data for Figure 4 are derived from U.S. International Trade Commission trade balance data for NAICS Code 3363 and 32621.
6 Data for Figure 5 are derived from U.S. International Trade Commission import and export data for NAICS Code 3363 and 32621.
7 Trade deficit is derived from U.S. International Trade Commission 2011 Year-to-Date (Jan-Oct.) data for NAICS Code 3363 and 32621, extrapolated to 12 months.
than the 2001 deficit. The similar timing and scale of the increase in Chinese auto parts imports and the decline of American auto parts jobs lead to the unavoidable conclusion that the auto parts industry is quickly being lost to China.

Why Chinese Imports?

The success of the Chinese auto parts export industry is not due to any inherent comparative advantage. Rather, it is a result of the explicit mercantilist polices of the Chinese government, including billions of dollars of subsidies, and the lack of an appropriate, coordinated U.S. response.

The Chinese government is not shy about the fact that it wants a world class auto industry. Official Chinese government pronouncements have consistently identified the auto industry – including auto parts production and increases in exports – as a top priority. The auto industry was named an official “pillar” industry as early as 1986. As one of five “heavyweight” industries (a subset of the pillar industries), private ownership is tolerated, but companies are subject to a very high degree of government oversight and control. Heavyweight industries are explicitly preferred targets for government financial subsidies and other support. Many provincial and local governments in China have also singled out the auto industry and auto parts exports as being central to economic development. Additionally, clean energy automobiles are one of seven strategic industries singled out in China’s 12th Five Year Plan (published last year) as the target of some of the $1.5 trillion dollars of spending over the next five years. Chinese authorities also openly discuss their intention to increase exports, with the goal of exporting significantly higher numbers of autos in the very near future.

The Chinese government recognizes the importance of the auto and auto parts sector and is taking steps to promote its success. However, the Chinese government’s relationship with its auto industry is utterly unlike that in the U.S., and Chinese support for autos is far from benign. The Chinese government is engaging in a variety of illegal and predatory practices that violate China’s international commitments and undermine the rules-based international trade system. As the number one target of China’s auto parts exports, it is the American

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9 Thun, supra note 8.
10 Stewart and Stewart, supra note 8; See also Haley, U.C.V., Putting the Pedal to the Metal: Subsidies to China’s Auto-Parts Industry from 2001 to 2011, Economic Policy Institute Briefing Paper; Washington, DC (January 2012).
11 Stewart and Stewart, supra note 8.
12 See e.g. State Council Automotive Industry Restructuring and Revitalization Plan (2009) and Stewart and Stewart, supra note 8 generally.
auto parts industry and its workers that are bearing the brunt of these unfair practices – and this trend will only accelerate, unless we act.

### China’s Support Programs for its Auto Parts Industry

- $8.7 Billion in input subsidies in 2010
- Plan to invest $18 billion in new energy autos and parts between 2011 and 2020
- Grants from government agencies
- Reduced corporate income tax rates
- Low-cost loans from state-owned banks and China Export-Import Bank
- Lower premiums on export credit insurance
- Domestic content *requirements* including the mandate that any autos built in China *must* include engines made in China.
- Subsidies of up to $18,000 per vehicle on new energy autos restricted to cars made in China
- Joint venture requirements for auto production with 50% Chinese control, which results in forced technology and intellectual property transfer
- Export duties on 298 items, many of which are key automotive inputs

### Export Subsidies

Many leading economists argue that the single most important export-enhancing subsidy is the artificially low value of the Renminbi, which makes American exports to China comparatively more expensive and Chinese exports to the U.S. comparatively cheaper.\(^{13}\) Beyond currency manipulation, Chinese exporters also benefit from a variety of direct and indirect subsidies, such as low-cost or free land and infrastructure, below-cost industrial inputs such as steel and glass, and electricity provided at less than the cost of generation. A recent study prepared by Dr. Usha C. V. Haley for the Economic Policy Institute estimates that the Chinese auto parts industry received $20.4 billion in potentially actionable subsidies between 2001 and 2010 (See Figure 6), with at least 7 billion and likely more in subsidies projected to continue in 2011.\(^{14}\) The opacity of these policies suggests

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that these numbers are almost certainly an understatement of the actual extent of subsidization.

In addition to these subsidies, which primarily benefit inputs and subcomponents of auto parts, a number of other illegal and unfair Chinese government policies artificially increase the competitiveness of Chinese exports. The value of these subsidies is likely in the hundreds of billions of dollars.\textsuperscript{15} For example, certain critical industrial inputs used in the auto industry, notably rare earth elements, are also provided to Chinese exporters at low cost thanks to illegal export restrictions. Cost of capital is also kept artificially low for Chinese exporters, who are able to borrow from state-owned banks on below-market terms and who may or may not be required to repay their “loans” at all. Two recent studies by independent think tanks, one in mainland China and one in Hong Kong, suggest that many Chinese state-owned enterprises would not be profitable at all were it not for direct subsidies and artificially low capital costs.\textsuperscript{16} The mainland study found that Chinese state-owned enterprises pay an average real interest rate of 1.6\%, while a study of Dongfeng, a state-owned car and auto parts manufacturer, found that its borrowing rates were well below the then-current Chinese prime rate.\textsuperscript{17} All of the major Chinese assemblers are wholly state-owned. The vast majority of dedicated parts producers are either wholly or significantly state-owned, and many of the large parts makers are affiliated or under common control with large state-owned assemblers.\textsuperscript{18} Chinese exporters benefit from these policies both as direct and indirect recipients of the above-mentioned subsidies. For example, preferred downstream customers of

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{figure6.png}
\caption{Total Identified Input Subsidies to the Chinese Auto Parts Sector, 2001-2010 ($Billions)}
\end{figure}

\textsuperscript{15} Stewart and Stewart, \textit{supra} note 8.
\textsuperscript{18} \textit{Id.}
heavily subsidized state-owned industries are able to buy inputs such as steel at below-market or even below-cost prices.\textsuperscript{19}

Chinese auto parts exporters also benefit from direct, export-dependent subsidies. Due to a general lack of respect for legal transparency and a certain amount of sophistication on the part of Chinese government actors, laws explicitly mandating such support are very difficult to find.\textsuperscript{20} Export incentives include massive amounts of low-cost export financing, export credit insurance, corporate tax holidays, selective value-added tax refunds and other aid provided to auto parts exporters through a system of export bases and special export zones.\textsuperscript{21}

Many of the above-mentioned subsidies are inconsistent with China’s WTO commitments and all of them can be challenged under U.S. countervailing duties laws if they can be shown to have caused significant harm here. Violation of international rules and norms should be vigorously challenged.

\textbf{A Closed Home Market}

Chinese auto parts makers continue to benefit enormously from a domestic market that is in effect closed to U.S. exports. From the beginning, the “opening” of the Chinese market has been conditioned on the willingness of the foreign party to play Beijing’s rigged game. Foreign investment is restricted to minority stakes (majority stakes are permitted in parts exporters; however that practice is changing as Chinese parts production moves up the value chain), but each investment requires a number of discretionary licensing processes. The approvals process is totally non-transparent and subject to tremendous discretion by multiple levels of government, and is used effectively to undermine trade rules and international agreements. For instance, although China pledged to give up forced technology transfer in return for market access as part of its WTO accession, authorities virtually always condition approval of market access and major investment projects on concessions by the applicant, including commitments to source parts locally rather than importing them from the US,\textsuperscript{22} to relocate R&D and design functions to China,\textsuperscript{23} to transfer lucrative intellectual property and advanced technology,\textsuperscript{24} and

\begin{footnotesize}
\begin{enumerate}
\item Haley, supra note 10.
\item Although the terms of WTO accession require China to publish information about its subsidy programs biannually, it has done so only twice, in 2006 and 2011, and then only incompletely. The second notification was in response to a highly unusual United States Trade Representative counter-notification of Chinese subsidies, i.e. the publication of a list of all the subsidy programs of which it was aware, in 2011 as a means of drawing attention to the problem. The WTO also requires translation of all relevant laws into one of its official languages, which China has also not done.
\item See, e.g., Szamosszegi, supra note 17. Since then, the number of auto parts export bases nationwide has increased from eight to 12.
\item Id. See also, e.g. Thun, supra note 8; Stewart and Stewart, supra note 8.
\item See, e.g., Szamosszegi, supra note 17.
\item American Business in China, American Chamber of Commerce 2011 White Paper.
\end{enumerate}
\end{footnotesize}
to assist local joint venture partners in the development of “local brands” endowed with formerly proprietary technology.\textsuperscript{25} The success of these non-transparent, informal controls has reduced or eliminated the need for explicit import substitution policies, although such policies do persist. For example, new investors in domestic assembly facilities are required to produce complete engine sets in China.\textsuperscript{26} Also, purchaser subsidies were recently denied for the Chevrolet Volt electric vehicle because it was not included in a list of specific eligible models, none of which are American-made.\textsuperscript{27} And a rule that domestically-assembled cars must contain at least 40% domestic content by value, which China promised to abandon in 2001, is apparently still in force.

These coercive practices have been extraordinarily effective. Although American car brands are well-represented in China, the Chinese market is effectively closed to exports of U.S. domestically-produced cars and parts – hence the staggering trade deficit in an industry that was traditionally one of America’s greatest strengths.\textsuperscript{28} Despite the resounding success of Chinese import substitution practices, and the very low volume of American auto parts exports to China (about $1 billion, versus $9.2 billion in imports from China in 2010), American producers have actually been challenged by China in two recent dumping cases, one which recently imposed additional duties on assembled cars and SUVs and one ongoing investigation covering parts. Both investigations were brought on incomplete evidence against products that are imported in minute quantities, in a way and at a time that strongly suggests that they are retaliatory. These cases and the laws above are indicative of the total lack of good will, or respect for international trade obligations, of the Chinese government and its deeply ingrained resistance to importation of American products even in tiny quantities.

\textsuperscript{25} \textit{Foreign Groups Told to Make Chinese Cars}, Financial Times (March 20, 2011).
\textsuperscript{26} Stewart and Stewart, supra note 8.
\textsuperscript{27} \textit{GM Plans to Develop Electric Cars with China}, New York Times (Sept. 20, 2011).
The Emerging Picture

Taken together, the rise in Chinese subsidies to the auto parts sector and the increase in the U.S.-China trade deficit and the decline in auto parts manufacturing employment in the U.S. over the past decade provide a good illustration of what is happening to these jobs (See Figure 7). The bright spot is the slight increase in U.S. auto parts manufacturing employment from 2009-2010, spurred by a variety of auto manufacturing-focused policy initiatives such as the GM/Chrysler resolution and Cash for Clunkers, even in the face of a near doubling of Chinese subsidies. This suggests that the situation is not hopeless, but that decisive government action is urgently needed to prevent these massive illegal Chinese practices from swamping the U.S. industry and undercutting its long-term job-creation potential.

The Next Danger

Earlier, this paper discussed the degree to which the fates of auto assembly and auto parts production are intertwined. The disruption caused by unfair Chinese practices has caused a break in that relationship in the U.S., because the advantages the Chinese products receive make them all-but-impossible to resist to the U.S. automakers.

The next step in this process is as predictable as it is dangerous to the U.S. economy. As the American auto parts sector decays, it will only make sense to the automakers to further offshore assembly to places like China and Mexico, the better to make use of the parts sectors that still exist. As the Chinese parts industry continues to displace the American parts industry, it is easy to extrapolate how the assembly industry will follow. After the extraordinary efforts that the U.S. has taken in order to keep domestic automakers afloat, it is unconscionable that we should let them slip away by allowing the domestic supply chain to wither.

The Silver Lining

The U.S. is not the only nation that has a large, important auto industry. Since China is engaging in such a massive effort to dominate the auto and auto parts market, it is instructive to look at how this is affecting the other major auto producing nations.

Were China’s rise in this industry inevitable, one would expect to see other auto-producing nations in a predicament similar to America’s, running huge and rising trade deficits in autos and auto parts with China. In fact, the exact opposite is true. Germany, Japan, and South Korea all have trade surpluses with China (See Figure

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29 Data for Figure 7 derive from U.S. Bureau of Labor Statistics, supra note 3; U.S. International Trade Commission Data, supra note 4; and subsidy data from Haley, supra note 10.
The loss of the auto parts industry to China is not a foregone conclusion, as the experience of these nations illustrates. Decisive action can restore a level playing field and, with fair trade, America’s auto and auto parts producers – and the people they employ – can succeed.

**Conclusion**

The unfair, predatory and protectionist trade practices of China in the auto parts sector has caused a decoupling of the historically linked auto assembly and auto parts manufacturing industries in the U.S. As a result, employment impacts in the two parts of the automotive sector no longer rise and fall together, and support for one or the other does not necessarily mean that both will prosper.

The U.S. must formulate a plan to challenge unfair Chinese trade practices. One need only look at the experience of the Germans, Japanese, and Koreans. Those nations are players in the Chinese auto market, leaders in assembly and have thriving domestic parts production.

The assembly sector is well on its way to success, and the parts manufacturing sector can and must join them. While the market is changing, American auto parts manufacturers have the ability to change with it, as long as they do not have to simultaneously deal with a wave of illegally-subsidized imports and other government policies that undermine American producers. But before that can happen, the government must act against these illegal practices that are injuring our industries and our workers. It must, and can, do so in a way that is consistent with our international obligations. The future of American industry and its employees can be bright, but only if there is a will to make it so.

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30 The value in Figure 8 for the United States’ trade balance with China differs from the figure used in Figure 4 and elsewhere in this paper due to differences in commodity aggregation format. Data in Figure 7 are derived from an aggregation of 37 Harmonized Tariff Schedule codes covering different auto parts, and Data in Figure 4 and elsewhere are derived from the North American Industry Classification System. Similar values for Japan, Germany, and South Korea are not available in NAICS format.