

**note 1-429-048**  
**February 16, 2010**

## Note on the Decline of the “Big Three” U.S. Auto Producers

GM, Ford, and Chrysler, the “Big Three” of the U.S. automotive industry, dominated automobile output in the 1950s. Globally, 80% of automobiles were manufactured in the United States.<sup>1</sup> Domestically, the Big Three had no competitors.<sup>2</sup> The U.S. car industry produced more automobiles than any other nation in the world, and their employees enjoyed high standards of living.

But this success was transient. Sixty years later, foreign nameplates had more than half the sales in the U.S. market.<sup>3</sup> Each of the Big Three was in crisis and GM and Chrysler filed for bankruptcy in 2009. This note explores the Big Three’s decline over the last half a century.

### 1950-1970: The Era of Global Dominance

In the 1950s and 1960s, the “Big Three” automakers in United States (GM, Ford, and Chrysler) dominated the global automobile market. In 1955, four of every five cars in the world were made in the U.S., half of this by GM, with Ford about half of GM’s size.<sup>4</sup> Within the United States, the Big Three held the entirety of the automobile market.<sup>5</sup>

GM employed 500,000 workers and produced four million cars annually, which were exported to countries around the world. By contrast, Toyota manufactured only 23,000 automobiles, with sales almost exclusively in Japan. Germany’s Volkswagen was only a little larger than Opel, GM’s German subsidiary. It was widely reported that GM’s largest competitive worry was an anti-trust action by the U.S. government.

These firms, all headquartered in southeast Michigan, dominated the global auto industry and created tremendous wealth. Jobs in auto factories were among the highest paid in the country. The Detroit area had the highest median income, and the highest rate of home ownership of any major U.S. city. In Flint, another large town based on automobile production, GM employed 100,000 workers. In the post-World War II decades, Americans from around the country poured into Michigan looking for good work.<sup>6</sup>

Labor relations were highly structured. Most workers were represented by industrial unions, and negotiations were governed by the Wagner Act, implemented in 1935. The Wagner Act promoted the freedom to bargain collectively for wages and working conditions. This act responded to the mechanistic work procedures championed by Frederick Winslow Taylor, who believed that one maximized efficiency by

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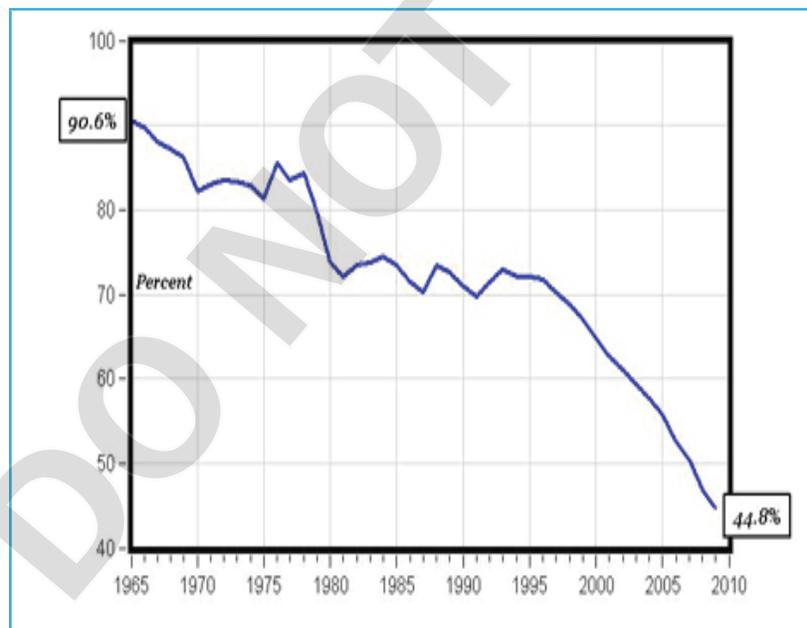
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repeating a job in the “one best way,” resulting in a mindless, tedious experience for the worker. Under the Wagner Act, employees could bargain collectively for higher compensation and better work procedures.<sup>7</sup>

These new freedoms gave way to a type of collective bargaining called pattern bargaining, propagated by United Auto Workers co-founder Walter Reuther. In pattern bargaining, the UAW used favorable settlements from one firm to demand the same or superior terms from another firm. In time, all three firms had similar, high-cost labor contracts, so there was little competition between firms to attract workers. Automakers were able to pass along the increased labor costs to their customers by increasing prices, since competitors responded to their own high costs in the same way.<sup>8</sup>

Detroit produced a distinct type of car. The low price of gas in the United States, combined with government subsidized construction of an ambitious highway system, created demand for big, flashy cars.<sup>9</sup> This led U.S. firms to focus on ostentation. They made their vehicles larger and heavier and added flashy extras like air conditioning, power steering, and fancy sound systems. By contrast, foreign automakers concentrated on innovation. The Europeans introduced disc brakes and air-cooled and diesel engines. Toyota developed and refined its famous production system. The mass production system discouraged innovation since it was expensive to introduce fundamentally new models and the U.S. did not glance twice at its competitors’ practices.<sup>10</sup> Why should it? The 50s and 60s were a time of plenty. In 1960, only 7% of automobiles sold in the U.S. were imports,<sup>11</sup> which rose to about 13% by 1970.<sup>12</sup> (See **Figure 1**.) In 1969, American automakers produced about 8 million vehicles.<sup>13</sup>

**Figure 1**  
**US Vehicle Sales Market Share Big Three: GM, Ford, and Chrysler**



Source: Perry, Mark. “Big Slide for Big 3 Market Share: From 90% to 45%” Carpe Diem. 18 January 2010.

## The 1970s: Stagnation and the Emergence of Global Rivals

The 1970s were characterized by dramatic economic, political, and social change. GM had long considered the market to be made up of two tiers, the United States and foreign countries, with the major

distinguishing factor being vehicle size. Foreign automakers focused on small, cheap vehicles that could be driven in dense European or Asian cities. U.S. automakers focused on larger, high-end vehicles.

As globalization proceeded, and automakers began expanding beyond their home countries, two difficulties arose for the Big Three automakers: the threat of the foreign entrants in the U.S. market and a need to change their own designs for foreign markets.<sup>14</sup>

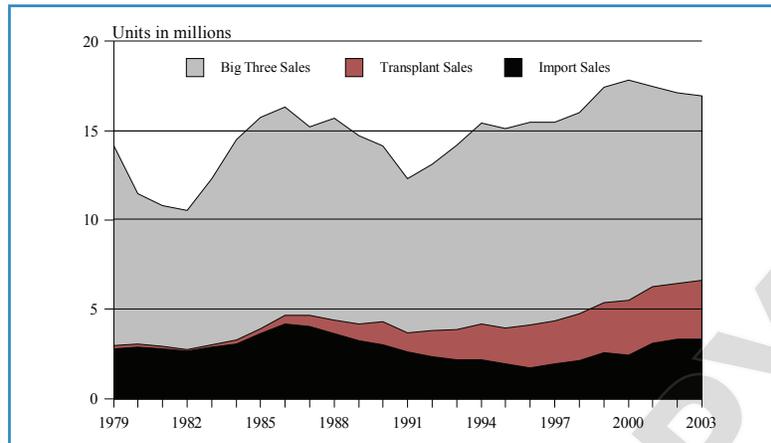
These challenges were compounded by the continued rise in wages and employee benefits, as well as the two major gas crises of the 1970s. The labor issue came to a head at the UAW strike against GM in 1970. The UAW’s key demand in that year’s negotiation was “30 years and out.” That was a demand that employees could retire from the drudgery of life on the line after 30 years. Since most line workers started right out of high school, many would be able to retire in their late 40s, and would not be eligible for Medicare for 15+ years. The UAW demanded generous pensions, and full, no co-pay, health benefits for retirees.<sup>15</sup>

In the early 1970s, U.S. oil prices were still significantly lower than world prices. In 1973, U.S. consumers tasted one of their first negative effects of globalization; the Arab oil embargo caused the price of crude oil to quadruple from \$3.00 per barrel to \$12.00 per barrel between 1972 and 1974.<sup>16</sup> This raised gas prices and, as a consequence, Americans quickly shifted away from large gas guzzlers toward more fuel efficient, smaller models. These were the types of cars in which the European and Japanese producers had an advantage.

Ford and Chrysler believed the hike in gas prices to be an aberration and responded in confusion and disbelief. They continued concentrating on improving production efficiency and made no effort to reduce fuel consumption or design smaller models. GM was the only one of the Big Three to introduce new, smaller, models – most notably the compact Chevette and the fuel efficient X-car line.<sup>17</sup>

In 1979, a second oil crisis hit following the Iranian revolution and the detention of American diplomats. Domestic crude oil prices more than doubled from \$14.95 per barrel to \$37.42 per barrel between 1978 and 1980.<sup>18</sup> The market for American cars declined sharply, though GM’s compact X-cars sold well. GM was the only U.S. automaker to increase its domestic market share and post a profit for the year. However, the second oil crisis illuminated Ford and Chrysler’s serious mistakes when Ford posted a profit only because of international sales, and Chrysler posted a \$1.1 billion loss, forcing the government to grant it a \$3.5 billion aid package that included \$1.5 billion in federal loan guarantees.<sup>19</sup> In 1979, transplants and imports claimed 20% of the market share of automobiles sold in the U.S.<sup>20</sup> (See **Figure 1.**) The Big Three firms claimed 80% of the market and produced a little more than 12 million units.<sup>21</sup> (See **Figures 1, 2, and 4.**)

**Figure 2**  
**US Motor Sales**



Sources: Ward's Motor Vehicle Facts & Figures (from 2000), various years; and, American Automobile Manufacturers' Association, Motor Vehicle Facts & Figures (through 1999), various years.  
Note: "Imports" are vehicles assembled outside North America.

### The 1980s: The Rise of the Transplants

The first few years of the 1980s were spent fighting the “stagflation” that had resulted from the second oil shock. In 1981, interest rates reached 20% and a deep recession brought a decline in domestic sales. In 1980, Chrysler lost \$1.7 billion, Ford lost \$1.5 billion, and GM posted its first loss in 50 years, \$756 million. In 1981, one in five jobs in the U.S. was still connected directly or indirectly with the U.S. auto industry, although 25% of those the industry had employed in 1978 were on an indefinite layoff. Industry sales were at their lowest levels in 20 years. Though Ford and Chrysler finally began to release compact and subcompact cars, Ford couldn't fund forward product programs, Chrysler teetered on brink of bankruptcy, and only GM posted a small profit and was expanding its programs.

Because the demand for cars had fallen sharply and foreign producers were rapidly gaining share with their smaller, more fuel efficient, models, the Big Three firms had to learn to focus on delivering better prices and quality to defeat imports, which had reached 25% of the market.

In 1980, Ford, reeling from the recession and its record losses, joined with the UAW to petition the International Trade Commission to impose tariffs on automobile imports. The ITC declined to take action, since it found that import competition was not the main cause of the problems the U.S. car industry was facing. However, further lobbying by Ford and the UAW led to a series of congressional hearings. The mounting pressure persuaded Japanese manufacturers to place “voluntary” limits on the volume of automobile imports in the U.S. for several years.<sup>22</sup>

Around the time they agreed to “voluntarily” limit imports, Honda, Toyota, and Nissan resourcefully decided to build car plants in the low-wage, non-union areas of the U.S. By opening plants in the United States, the Japanese producers could avoid potential tariffs, while also employing skilled Americans to produce vehicles closer to the world's largest market.<sup>23</sup> This allowed them to keep producing small cars and to change models more frequently than before.<sup>24</sup> Honda opened an assembly plant in Marysville, Ohio, in 1979, which was the first Japanese transplant manufacturing operation in the United States. Employing 119,947 workers, the plant pushed Ohio to the number two position in automotive employment, after

Michigan’s 394,048 employees.<sup>25</sup> Nissan opened a plant in Tennessee, the number three state for automotive employment, in 1983.<sup>26</sup> Toyota’s largest plant outside of Japan, located in Georgetown, Kentucky, opened for production in 1988.<sup>27</sup>

Roger Smith, GM’s CEO at the time, proposed a fix-all solution for changing the production process and stopping the decline of the U.S. auto industry: 28 GM would spend \$40-45 billion to replace workers with high-tech robotics. The firm claimed that this strategy would produce fuel-efficient, high quality, compact cars cheaper and in greater volume than ever before. Smith truly believed that in one stroke, he would destroy all foreign competition with factory automation, which included advanced computer services, microelectronics, and systems engineering. GM created new operating divisions for manufacturing and abolished the former Fisher Body and the GM Assembly Division. These new divisions controlled multiple steps in the production process, including design, manufacturing, and sales. The media hailed Roger Smith as a visionary and honored him with the Financial World Gold Medal, which recognized the best CEO in the U.S. Soon, automated factories produced two-thirds of GM automobile parts. However, many of these plants ran at only 50% capacity due to computer glitches, and labor strikes demonstrated workers’ frustration. Market share and operating income declined, and in 1985, after four years of intensive spending on robotics, GM still earned 26% less revenue on each vehicle than Toyota. GM’s stock price increased 35% from 1981 to 1987, while Ford’s increased seven-fold during the same time period.

Former GM CFO F. Alan Smith summed up GM’s situation in 1986:

“Since 1980 GM has spent \$45 billion on the automotive business. Capital spending appears to be almost inversely related to our levels of operating profit. And GM’s forward capital spending plans are projected to be \$34.7 billion over the period from 1986 through 1989. For \$34.7 billion, given recent market valuations, GM could have purchased Toyota and Nissan. This would almost double GM’s world market share, increasing our penetration to over 40% of the entire free world. Can we expect to double our worldwide market share from our spending program?”<sup>29</sup>

In the meantime, foreign manufacturers increased their production and began to produce larger, medium-sized cars; their overall share of the American car market reached 32 percent in 1989.<sup>30</sup> (See **Figure 1.**) The production of Big Three firms in 1989 was about 11 million units.<sup>31</sup> (See **Figure 2.**)

## The 1990s: The Return of “Normalcy”

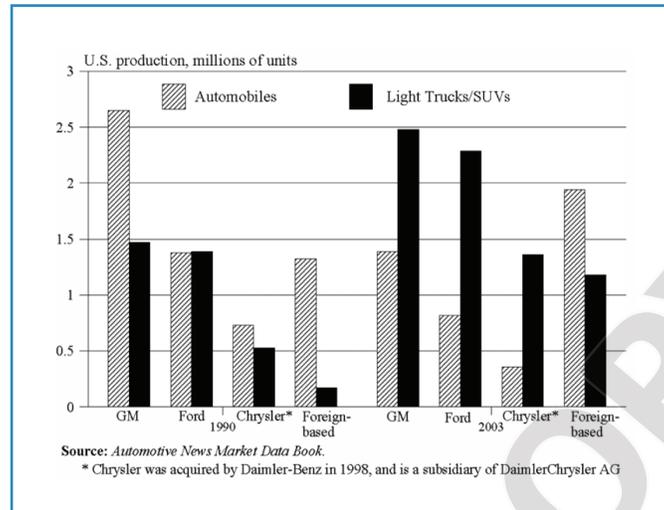
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In the 1990s, fate again turned to the Big Three’s favor, as the economy grew steadily. Oil prices started at a high of \$23 per barrel in 1990 and steadily declined, reaching \$16 in 1994.<sup>32</sup> The Big Three discovered a variation on their strategy from the 1960s. Because sports utility vehicles (SUVs) were classified as trucks (because of their chassis), they were protected by a 25% import tariff and escaped government rules that required automakers to boost fuel efficiency. As the transplants gained share in the medium and even high end car segments, the Big Three retreated to their high-end niche market, and American consumers rejoiced in the luxurious, all-American SUV and the low gas prices to match. Sales of light trucks and SUVs soared from one to four million in the decade, and came to make up well over half of the Big Three’s sales and the majority of their profits.<sup>33</sup> (See **Figure 3.**)

At the beginning of this era, cars were 64% of GM’s output and 58% of Chrysler’s. By 2003, trucks ruled, comprising 64% of GM’s output, 74% of Ford’s output, and 80% of Chrysler’s total production.<sup>34</sup> In 2003, the Big Three produced 6 million “light trucks,” or SUVs, while all foreign firms combined produced little more

than 1 million light trucks.<sup>35</sup> (See **Figure 3**.) In 1999, the Big Three firms produced about 15 million units of output.<sup>36</sup> (See **Figure 2**.)

**Figure 3**  
**US Production**



### The 2000s: Continued Decline, and then Collapse

SUV sales in the 90s did not compensate for the myriad of problems that the Big Three had been ignoring, and they were forced to confront them in the 2000s—demanding labor contracts, inefficient production processes, and poor product decisions.<sup>37</sup>

The labor contract nuisances from the 70s came back to plague the American firms in the 2000s. If an American automaker wanted to lay off a worker, it was required to support the fired employee at 95% of his or her salary plus benefits for the remainder of the contract. Because of this, when demand dropped in the 2001 recession following the September 11<sup>th</sup> attacks, the Big Three continued production; there was little difference in labor costs between producing and shutting down plants.<sup>38</sup> In **Figure 2**, Big Three total production only dropped slightly between 2000 and 2003.<sup>39</sup> Instead of reducing production, the firms offered discounts of up to \$6000 or interest-free financing for up to 72 months.<sup>40</sup> A second growing issue was that in 2003 there were three times as many GM retirees as employees who were voting members of the UAW. The retirees were keen to enforce the policies negotiated with GM in the 70s. Therefore, retiree benefits came to account for the lion's share of difference between GM labor costs and costs of foreign automakers in the U.S. These burdens, coupled with escalating interest rates, devastated the Big Three's earnings.<sup>41</sup>

Japanese automakers took a distinct approach toward employee compensation. Instead of paying a generous pension after an early retirement, Japanese automakers offered premiums on the basis of individual contribution, which made cost per worker somewhat proportional to individual output. They also did not offer healthcare plans as extensive as those of the Big Three employers.<sup>42</sup> In the mid-2000s, the average cost of healthcare was \$1,220 per Big Three vehicle compared to about \$450 per foreign nameplate, since none of the Japanese, Korean, or European plants in the U.S. employed union labor. Additionally, in 2004, an average union worker made \$35.78 per hour and a non-union worker got paid \$24.90 per hour, which created a \$1,000 per vehicle labor cost advantage for foreign producers.<sup>43</sup>

Also, Japanese producers’ lean production processes were more efficient than those of the Big Three. In 2007, a Nissan worker spent 28.46 hours per vehicle (hvp), a Toyota worker devoted 29.40 hvp, and Honda’s productivity was 32.51 hvp. The Big Three came in last: Chrysler’s productivity was 33.71 hvp, a GM worker spent 33.19 hvp, and Ford had a productivity of 35.82 hvp.<sup>44</sup> Not only were they more efficient, but Japanese processes also rewarded workers with a sense of autonomy and fulfillment. Communication between workers and managers was fundamental to the Japanese model. This level of fulfilling productivity was impossible for the Big Three firms, who still operated under a large set of inefficient work procedures that had resulted from pattern bargaining and set managers and workers against each other.<sup>45</sup>

Foreign brands also had higher quality ratings than domestic brands. In 2009, Cadillac was the only GM brand to be in the top five ranking for automobile quality. Lexus, Porsche, Hyundai, and Honda were also in the top five. In addition, foreign nameplates captured 15 of the 22 segment awards offered by J.D. Power and Associates.<sup>46</sup>

Even SUV sales, American automakers’ key strength, could not support the Big Three through the 2000s. SUV sales began to decline in 2006 and 2007 when gas prices passed \$3 per gallon in most states and foreign automobile manufacturers entered the SUV market.<sup>47</sup> By 2003, imports and transplant production of light trucks, or vans, pick-up trucks, and SUVs, comprised 25% of all light truck sales in the U.S., compared to a mere 11% in 1995.<sup>48</sup> (See **Figure 3.**) Then when the Big Three presented electric-powered concept cars at the Detroit Auto Show in 2007, Toyota had already released hybrid electric-petrol engines across its entire range of vehicles.

In the 2000s, foreign automakers continued to chip away at the domestic market share of the Big Three; it seemed that many Americans no longer bought cars out of patriotism.<sup>49</sup> By 2009, the Big Three market share slipped below 45%, giving foreign nameplates 55% of U.S. sales, the majority of the market share.<sup>50</sup> (See **Figure 1.**) In 2008, the Big Three’s output fell to a mere 8.7 million units.<sup>51</sup>

## The New Drivers of U.S. Automobile Production

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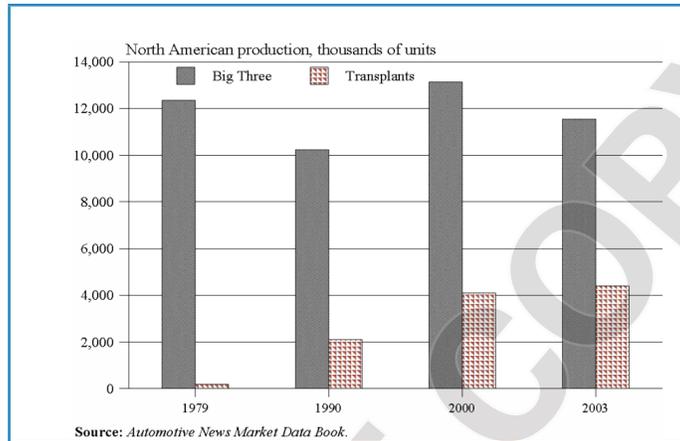
The Big Three suffered a long, steep decline from their high status in the 1950s and 60s. A myriad of different factors contributed to the demise of three of the largest and most stable firms of the time, including competition, poor leadership and product decisions, the economic environment, union demands, and low productivity. Transplants have gained the majority of the U.S. automobile market share, but somewhat paradoxically, consumers who purchased these brands were likely supporting American workers. In 2004, three out of every four of the 1.4 million Toyotas sold in the U.S. were produced in the U.S. Honda produced 81% of its domestic sales in U.S. plants, and Nissan produced 86% of its U.S. automobile sales in the U.S.<sup>52</sup>

Though Big Three firms have made large cuts, foreign transplant employment has risen. Over the past two decades, the number of auto-related manufacturing jobs have fallen 34% in Michigan and jumped 152% in Kentucky, where Toyota has several factories.<sup>53</sup> Michigan’s employment in the automobile industry fell almost 33%, from 394,000 to 269,000 between 1979 and 2003.<sup>54</sup> In Flint, Michigan, a once-prosperous automobile town, GM employed only 6,000 in 2007, making it the state’s forerunner in unemployment, poverty, and homelessness. In the late 2000s, Toyota built a new plant every year to keep up with demand and attracted 100,000 people to apply for 3,000 coveted jobs at a factory in Georgetown, Kentucky.<sup>55</sup> Automotive employment in Kentucky increased more than three times from 14,000 in 1979 to 53,000 in 2003, shifting the state from the 14<sup>th</sup> to the 4<sup>th</sup> position in number of people employed in the automotive industry.<sup>56</sup>

The rise of foreign transplants compensated for any loss of employment or production by U.S. firms, and overall domestic U.S. automobile production has remained relatively steady. From 1970 to 1993, the average number of motor vehicles assembled yearly in the U.S. was 10.4 million, which grew to 12.1 million from 1994 to 2005.<sup>57</sup> As seen in **Figure 4**, foreign transplant production has grown consistently from 1979 to 2003, while Big Three production has fallen during crisis periods and risen in times of success.<sup>58</sup>

Though the U.S. auto industry has experienced a staggering demise, American workers are producing more vehicles than ever before. If these transplants plan to succeed, however, they must gain insights from the decline of the once-legendary GM, Ford, and Chrysler.

**Figure 4**  
**North American Production**



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## Endnotes

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**Notes**

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