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The Effects of the 2007-2009 Economic Crisis on Global Automobile Industry

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The Effects of the 2007-2009 Economic Crisis in the Global Automotive Industry

by

Xue Bai

An Abstract of a Thesis
in
Applied Economics

Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Master of Arts

December 2012

State University of New York
College at Buffalo
Department of Economics and Finance

ABSTRACT OF THESIS

The Effects of the 2007-2009 Economic Crisis in the Global Automotive Industry

The automotive industry had been severely affected by the tightening of credit caused by a subprime-lending crisis in the United States starting in the mid 2000's. Demand for automobiles had fallen sharply all over the globe, and sales plummeted to a three-decade low in 2011. This caused serious repercussions, and the damage spread all over the world. It was only with government assistance that the automotive industry quickly recovered after the recession.

This paper, will study the relationship between the global financial crisis and the automotive industry. It will focus on US car manufacturers as they were affected the most. It will also analyze other major markets around the world, notably Europe and Asia. This paper will reveal how auto manufacturers combatted the crisis, how governments managed to rescue and protect auto industries, and how autoworkers had to compromise. An analysis of their methods will be conducted. It has become clear that government help was essential yet not beneficial to the companies in question in the long run. Technology for environmental-friendly vehicles and quality improvement should be the long-term focus of car manufacturers compared to short-term profits.

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Dedication

To my parents who have provided endless love and support wherever I was and whenever I needed.

To my most beloved husband who has been a great source of motivation and inspiration in my studies and my life.

To my father-in-law and mother-in-law who offered the best of their support and encouragement to me and to our family.

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1. Introduction

The automotive industry comprises 3% of gross global product. In many Western countries this number is higher (3.6% in the US)¹. Millions of workers worldwide are employed in auto manufacturing, auto parts, and supplies manufacturing as well as service and after sales care and other derivative industries. The auto industry produces more than 800 million cars globally. More than 250 million vehicles are produced in the United States. Despite the numbers, the level of interdependence caused by globalization is hard to quantify. Suppliers and clients are spread around the world in a web of relationships and obligations to one another.

The economic crisis of the mid to late 2000's did not have an equal impact across countries, companies, and employees. For example, in 2009, the dramatic impact of the recession followed by a restructuring in the US automotive industry was not fully mirrored in other mature markets in Europe or Japan. In the meantime, a very different trend was observed in major emerging economies with large domestic markets such as China, India, and Brazil, which experienced rising output as well as increased sales of motor vehicles. Many opportunities for mergers and acquisitions were present around the world. The crisis may have been a chance for Indian and Chinese auto manufacturers to expand their markets and become world players. Chinese auto manufacturers, for example, have since cut into the markets of US car manufacturers – particularly where environmental standards are less stringent.

The poor performance of US automakers was exacerbated by the 2008 financial

¹ Cole, David, et al. Car Research Memorandum The Impact of a Major Contraction of the Detroit Three Automakers. PhD Thesis. Ann Arbor: Car Center for Automotive Research, 2008.

crisis, which was then held responsible for the automotive crisis. The effects of the financial crisis were more immediate on the employees than the shareholders. Therefore the workers were reluctant to accept mass cuts in wages, pensions, and jobs from the firms. The firms in turn were made more vulnerable by decreased lending and unavailability of capital for their survival.

This study consists of nine sections including an introduction and a conclusion. Following the introduction and literature review, the third section analyzes the relationship between the financial crisis and the auto industry. Then follows a fourth section: a review of the North American market. First a general analysis will be presented of American auto manufacturers, namely GM, Ford, and Chrysler (the Big Three), and of their troubled state due to the crisis. Three phenomena augmented the crisis: cost of fuel, cost of labor, and unavailability of credit. Industry data and related facts will be listed to demonstrate how union workers and the excess of car brands influenced the Big Three. A detailed review of the bailout process and its impact on auto manufactures follows, along with a discussion of strategies and proposals by the corporations. TSecond, there will be an examination of how the crisis hit Canada, and how the Automotive Products Trade Agreement affected Canadian auto manufacturers. There will be a detailed review of the conflict between the Canadian Auto Workers labor union, car manufacturers, and the government.

Section five focuses on the European Union, including the auto markets of Russia, Germany, France, Italy, Spain, and the United Kingdom. While the auto market in Europe was relatively mature, both the luxury segment and massed-produced car segment were both hit. Auto companies reacted with plant shutdowns and layoffs. Major auto

companies demanded subsidies from their respective states.

Section six recounts the story of the Asian markets, namely China, India, Japan, and South Korea. In 2009 car sales in Japan fell to their lowest levels in the last thirty years, while automakers in South Korea demonstrated higher profit margins compared to their Japanese and American counterparts. Among major emerging economies with large domestic markets, China and India experienced rising output. Governments in all these countries subsidize their auto industries.

Section seven explores the various governments' role in their automotive industries, followed by section eight which gives an analysis and a prediction of the future of the automotive industry.

Facts and examples in this paper seek to highlight the global nature of the crisis. Although the focus is on the U.S market, other regions are highlighted as well. The purpose of presenting these facts is to provide a thorough and detailed analysis as to underlying events and the reactions of affected institutions, including auto manufacturers, labor organizations and governments. This paper will attempt to reflect on the causes of the financial crisis and associated issues of moral hazard and agency risk.

2. Literature Review

In their book *The Great Book of Automobiles*, Michael Bowler, Giuseppe Guzzardi, and Enzo Rizzo once said, “As a symbol, more than almost any other invention, the automobile has come to represent the 20th century and its technological and commercial evolution. The automobile captures and reflects the great changes that took place during 100 tumultuous years.”² This quote indicates the very important role the automotive industry plays in the global economic structure. The ILO (International Labor Organization) reports that the auto industry has today become a major source of employment worldwide. “The global workforce total probably climbed to just under 10 million by the end of 2007. According to a report in 2008 by the US independent think tank the Economic Policy Institute, some 3.3 million jobs in the United States alone are dependent on the continuing fortunes of the country’s car producers.”³

Therefore, when financial crisis in 2008 hit the global economy, it hit the car industry with real intensity. The crisis in the global car industry has led to huge job losses. All the world’s major car companies announced a decrease in hours, reductions of labor forces, or even closures. The largest car company and indeed the largest multinational for much of the twentieth century – General Motors – was in its death throes with increasingly desperate interventions by the US government to keep it alive. In January 2009, the Federal government used \$24.9 billion of the \$700 billion bank bailout fund to rescue two of the Big Three: \$17.4 billion for General Motors and Chrysler, \$6

2 Bowler, Michael, Giuseppe Guzzardi and Enzo Rizzo . *The Great Book of Automobiles*. New York: White Star, 2004. 35.

3 International Labor Organization. *The crisis and the future of the automobile industry: Putting the spark back into the automobile industry*. 1 August 2009. 5 June 2012
<http://www.ilo.org/global/publications/magazines-and-journals/world-of-work-magazine/articles/WCMS_115469/lang--en/index.htm>.

billion for GMAC, and \$1.5 billion for Chrysler Financial.⁴ Kimberly Amadeo, President of WorldMoneyWatch.com, gave the reason for this in her published article, *The Auto Industry Bailout – Why GM, Ford and Chrysler Asked For Government Loans*. She thinks the purpose of the government subsidies was to provide operating cash for GM and Chrysler, and to keep auto loans available for car buyers even though many opposed the bailout. She claims the U.S. automakers brought their near-bankruptcy on themselves by not retooling for an energy efficient era, thereby reducing their competitiveness in the global market.⁵

Besides the US, in Canada the federal and Ontario governments provided the Canadian subsidiaries of U.S. automakers with 4 billion Canadian dollars (\$3.29 billion) in emergency loans. As the Canadian Prime Minister explained on Dec. 20, 2008, "In Ontario, we've got thousands of people and their families who rely on the auto industry to be on firm ground, so they can put food on the table and keep a roof over their heads. ... No state or province employs more workers, and we're not going to give that up."⁶ Meanwhile, in Europe and Asia, car manufacturers all got a certain amount of government subsidies. Government bailouts became a necessary means to ensure many automotive manufacturers' survival.

However, government help was not the only solution. The auto industry has today become a major source of employment worldwide. A recent ILO briefing paper suggests that in 2004 about 8.4 million people around the world worked in automotive production

4 Amadeo, Kimberly. [About.com](http://useconomy.about.com/od/criticalissues/a/auto_bailout.htm). 28 March 2012. 3 July 2012 <http://useconomy.about.com/od/criticalissues/a/auto_bailout.htm>.

5 Amadeo, Kimberly. [About.com](http://useconomy.about.com/od/criticalissues/a/auto_bailout.htm).

6 Noronha, Charmaine. [Canada, Ontario to Provide \\$3.29 Billion in Automaker Loans](http://www.washingtonpost.com/wp-dyn/content/article/2008/12/20/AR2008122001952.html). 21 December 2008. 4 July 2012 <<http://www.washingtonpost.com/wp-dyn/content/article/2008/12/20/AR2008122001952.html>>.

(including the manufacturers and component firms): around 2 million in Europe, over 1.6 million in China, 1.1 million in North America, and 750,000 in both Russia and Japan, as well as smaller but still significant numbers elsewhere. The global workforce total probably climbed to just under 10 million by the end of 2007, the ILO reports.⁷ Any solution must therefore take these workers into account.

Thomas A. Kochan, from the MIT Institute for Work and Employment Research (US), concurred. “We need more than a financial bailout. The challenge at hand is to forge a new social contract for the auto industry, to understand the workplace and to engage workers, employers but also other stakeholders.”⁸ Barry Bluestone, professor of political economy at Northeastern University (US), linked this approach with the necessity of re-examining social relations in the sector, saying: “There is a need for a fundamental change in what the automotive industry builds and how we build these products, but also in the social relations between employers and unions.”⁹ It illustrates how significantly the automotive unions perform during a crisis, and how important it is to deal with the relationship between car manufacturers and union workers. The United Autoworkers’ Union (UAW) in turn points to sacrifices made by the workers, including modifications to the 2007 collective bargaining agreement negotiated with the company and to employee benefits. A similar process was undertaken in Canada, where the Canadian Autoworkers Union (CAW) reached a provisional settlement with the company for a new collective agreement in May in 2009, as part of the overall restructuring.

According to the article “Automobile Industry Crisis” published in the New York

7 International Labor Organization

8 Noronha, Charmaine

9 International Labor Organization

Times in 2011, many of the excesses of the past — overproduction, bloated vehicle lineups, expensive rebates — are gone. Carmakers have shed workers, plants and brands in order to save their companies.¹⁰ The auto industry is on a journey, in other words, which will move it away from dependence on the gas-guzzling high-emission vehicles of the past. US President Barack Obama has linked his government's intervention in the auto industry with a strategic move to curb fuel consumption. The need for progress in developing cleaner vehicles and cleaner fuels has also been identified by the global union federation for the industry, the International Metalworkers' Federation, in a statement by its executive committee in February 2009. The ILO briefing paper also said, "The economic crisis could be turned into an opportunity to reduce the industry's carbon footprint and create green jobs. Many measures already adopted by governments favor investments in more environmentally friendly vehicles."¹¹ Reuters reported that the Congressional Budget Office said in a report issued in 2009 that U.S. federal policies to promote electric vehicles would cost \$7.5 billion through 2019. Honda, Toyota, Ford, Chevrolet, etc. are now all producing all-electric cars and plug-in hybrids, which is part of the auto industry's solution to reach increasingly stringent fuel economy standards designed to cut emissions and lessen the dependence on oil.

Previous research on this subject has given a brief picture regarding the crisis, with many different commentators giving their views regarding a certain firm and its gains and losses. Other research done in the past has focused specifically on a single nation and the effects suffered in its market; therefore the framework for this study will be to cover a broader perspective relative to all sides involved in the crisis. This paper

10 The New York Times. Automotive Industry Crisis. 25 May 2011. 2 September 2012
<http://topics.nytimes.com/top/reference/timestopics/subjects/c/credit_crisis/auto_industry/index.html>.

11 International Labor Organization

will try to merge all of the work done by many previous writers, commentators, and analysts in this field so that it will give the reader a much broader idea of the event and its causes as well as effects.

3. Financial Crisis and the Automotive Industry

3.1 Effects of the financial crisis on the auto industry

The automotive industry is among the sectors that was hit the most by the recession. Demand for cars fell sharply, deepening the economic downturn in major car-producing countries. Because of the strong linkages with other parts of the economy, the final impact of a shock in the industry on the broader economy was sizable.

The reduction in car sales from mid-2008 to 2009 was magnified by the lack of access to credit. Econometric estimations indicate that tight credit conditions could explain more than 80% of the collapse in car sales at the end of 2008 in the United States and in Canada.¹² Indeed, the high cost of credit and the inability to obtain auto loans on affordable terms prompted buyers to postpone purchases they might have otherwise made. In addition, the growing average longevity of motor vehicles that has been observed in recent years may have favored these behaviors.

In 2008, a series of damaging blows drove the Big Three to the verge of bankruptcy. The financial crisis played a role, as GM was unable to obtain credit to buy Chrysler. As consumer credit tightened, sales fell sharply. As mentioned, it became much harder for people with average or poor credit to obtain a bank loan to buy a car. During 2007, nearly 2 million new U.S. cars were purchased with funds from home equity loans. Such funding was considerably less available in 2008.¹³ Moreover, the instability of the

12 Similar financial conditions were found in all G7 countries, except France. In the United Kingdom and Japan, tight financial conditions were estimated to also influence sales, albeit with a lag. The historical pattern would suggest that the financial aspects of the crisis affected the automotive industry only in the first quarter of 2009, but it is likely that adjustment speeds were faster in the current crisis.

13 Dash, Eric. Strategies for Car Shopping in a Time of Tighter Credit. 20 November 2008. 2 August

job market and individual consumer finances discouraged consumers who already had a working vehicle from taking on a new loan and payments, which affected almost all major manufacturers. Therefore, without improvement in the financial markets, there was little way to provide forward momentum for car sales.

Meanwhile, major car manufacturers had in recent years focused on manufacturing SUVs and large pickups, which were much more profitable than smaller, fuel-efficient cars. Manufacturers made a 15% to 20% profit margin on an SUV, compared to 3% or less on a regular car.¹⁴ When gasoline prices rose above \$4 per gallon in 2008, Americans stopped buying the big vehicles and Big Three sales and profitability plummeted. Robert Samuelson advocated a more consistent energy policy, arguing, “Wild swings between low and high fuel prices have crippled the U.S. industry by erratically shifting buyer preferences – to and from SUVs.”¹⁵

Louis Uchitelle reported in the New York Times that some 20% of the entire national manufacturing sector was still tied to the automotive industry. The annual capacity of the industry was 17 million cars in 2006; sales in 2008 fell to an annual rate of only 10 million vehicles made in the U.S. and Canada. All the automakers and their vast supplier network accounted for 2.3% of the U.S. economic output, down from 3.1% in 2006 and as much as 5% in the 1990s. The car manufacturers can only make a profit when sales are at least 12 million, the Big Three when sales are at least 15 million.¹⁶ By

2012 <<http://www.nytimes.com/2008/11/23/automobiles/23LEND.html?pagewanted=all>>.

14 Cloud, John. Why the SUV is All the Rage. 24 Feb 2003. 5 August 2012 <<http://www.time.com/time/magazine/article/0,9171,1004283,00.html>>.

15 The Daily Beast. How to Bail Out General Motors. 4 November 2008. 6 August 2012 <<http://www.thedailybeast.com/newsweek/2008/11/15/how-to-bail-out-general-motors.html>>.

16 Uchitelle, Louis. If Detroit Falls, Foreign Makers Could Be Buffer. 16 November 2008. 7 August 2012.

December 19, 2008, oil prices had fallen to \$33.87 per barrel, but the automotive crisis continued.¹⁷

3.2 Cyclicalities of the automotive industry

Purchasing an automobile is discretionary spending. Economic activity in the automotive industry usually moves in line with the overall business cycle, but the amplitude of the cycle is higher. The volatility of the industry is also higher than that of the manufacturing industries as a whole.

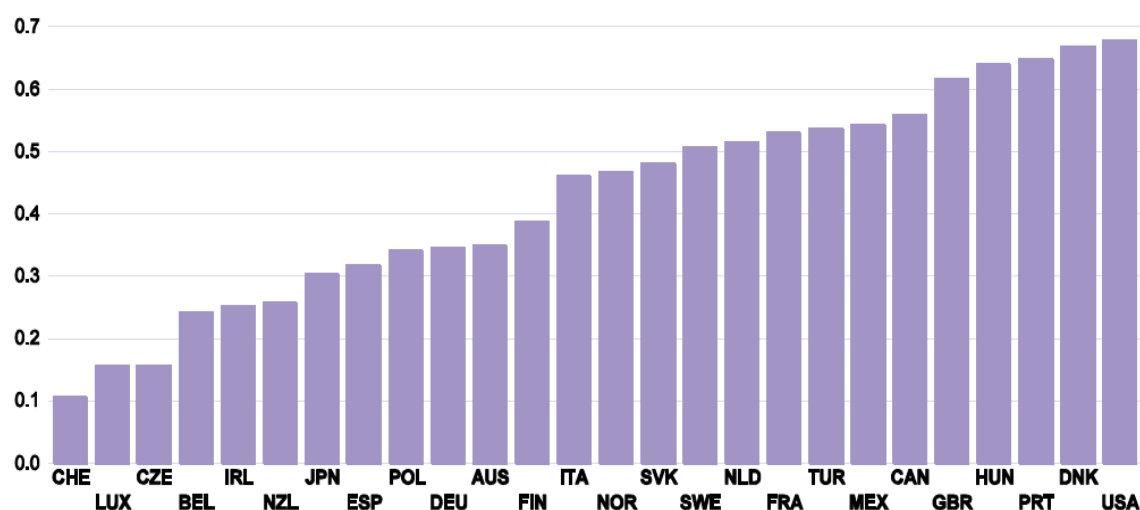
A high correlation is also found between car sales and private consumption, which in turn accounts for a large part of total output. The relation seems to be particularly vigorous in the United States, the United Kingdom, and Canada, and in some smaller OECD countries (Figure 3-2). It was generally stable in Japan, Italy, and the United Kingdom, while it declined noticeably in France (Figure 3-1).

Fluctuations in activity in the automotive industry displayed stronger amplitude than the economy-wide and the manufacturing business cycle (Table 3-1). The variance of automobile production growth was also larger than the one of business investment growth. As in the wider economy, the fluctuations appear to have declined since the 1990s in the automotive industry. This is largely due to improved inventory management techniques and more stable car sales.¹⁸

17 Webster, Larry. GM in Crisis—5 Reasons Why America's Largest Car Company Teeters on the Edge Read more: GM in Crisis—5 Reasons Why America's Largest Car Company Teeters on the Edge - Popular Mechanics. 18 November 2008. 8 August 2012 <<http://www.popularmechanics.com/cars/news/industry/4292379>>.

18 Haugh, David, Annabelle Mourougane and Olivier Chantal. "The Automotive Industry in and Beyond the Crisis." Economics Department Working Papers No. 745 (2010): 36.

Figure 3-1 Correlation between private consumption and car sales (Quarter-on-quarter growth rates 2000-2009)



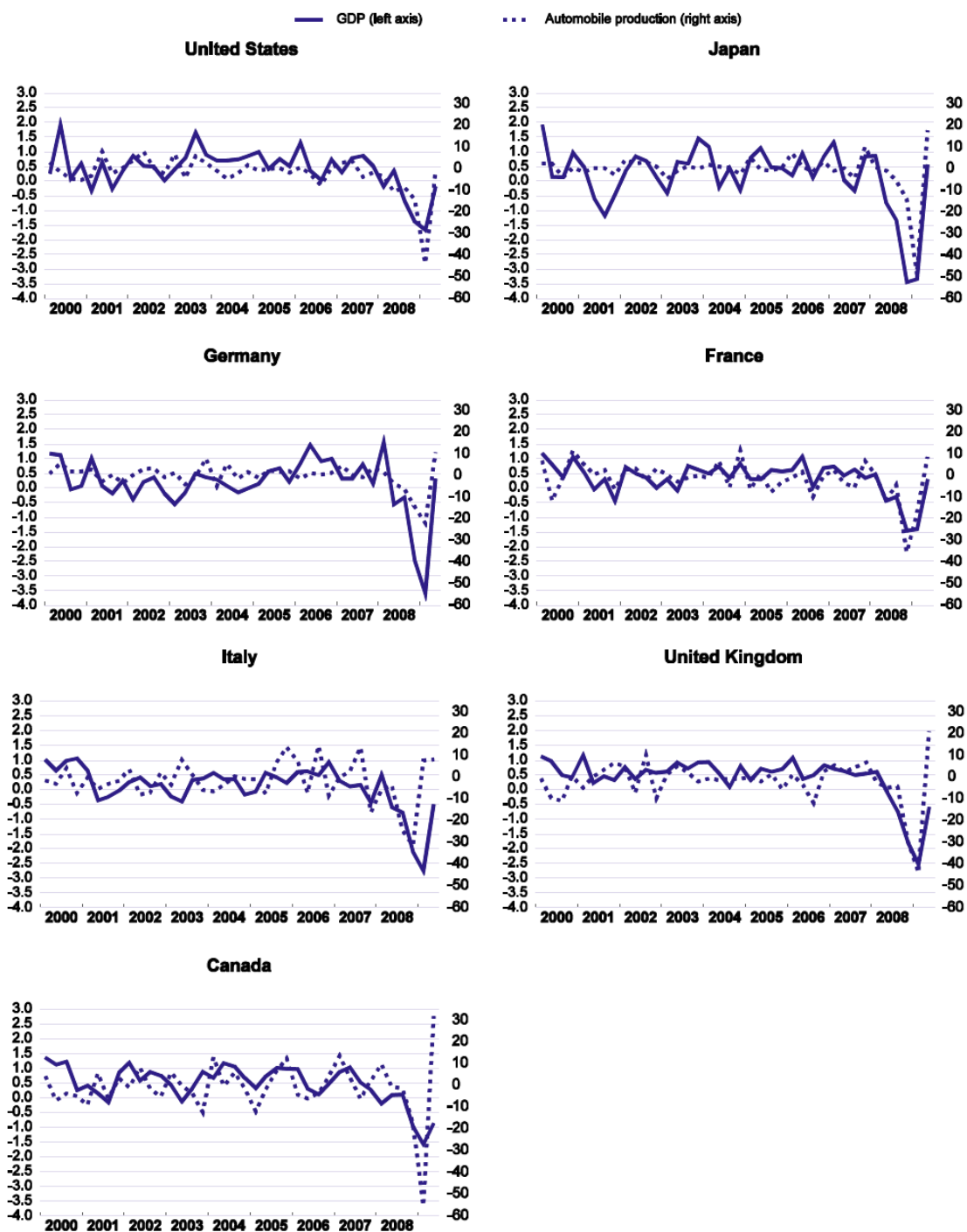
Source: Datastream; OECD Economic Outlook 86 database.

Table 3-1 Automobile production is more volatile than GDP and investment (Standard deviation of quarter-on quarter growth rates)

	1960-1980			1980-1990			1990-2000			2000-2007		
	Automobile production	GDP	Investment	Automobile production	GDP	Investment	Automobile production	GDP	Investment	Automobile production	GDP	Investment
United States	10.6	1.0	2.3	10.1	1.0	2.5	6.7	0.5	1.8	3.9	0.5	1.9
Japan	7.7	1.4	4.0	3.1	1.0	2.6	3.5	0.9	3.1	3.2	0.7	2.9
Germany	-	-	-	-	-	-	3.9	0.7	2.1	2.8	0.5	2.0
France	-	1.3	2.9	5.3	0.5	1.7	5.5	0.5	1.6	4.2	0.4	1.4
United Kingdom	16.7	1.3	3.3	8.3	0.9	4.2	5.4	0.6	2.8	5.4	0.3	10.4
Canada	12.6	0.9	2.7	15.0	1.0	3.2	12.0	0.7	3.2	6.8	0.4	1.9

Source: Bundesbank; INSEE; Datastream; OECD Economic Outlook 86 and Main Economic Indicators.

Figure 3-2 G7 GDP and automobile production growth (quarter-on-quarter growth rates)



Bundesbank; ISTAT; INSEE; Datastream; OECD Economic Outlook 86 database; OECD, Main Economic Indicators database

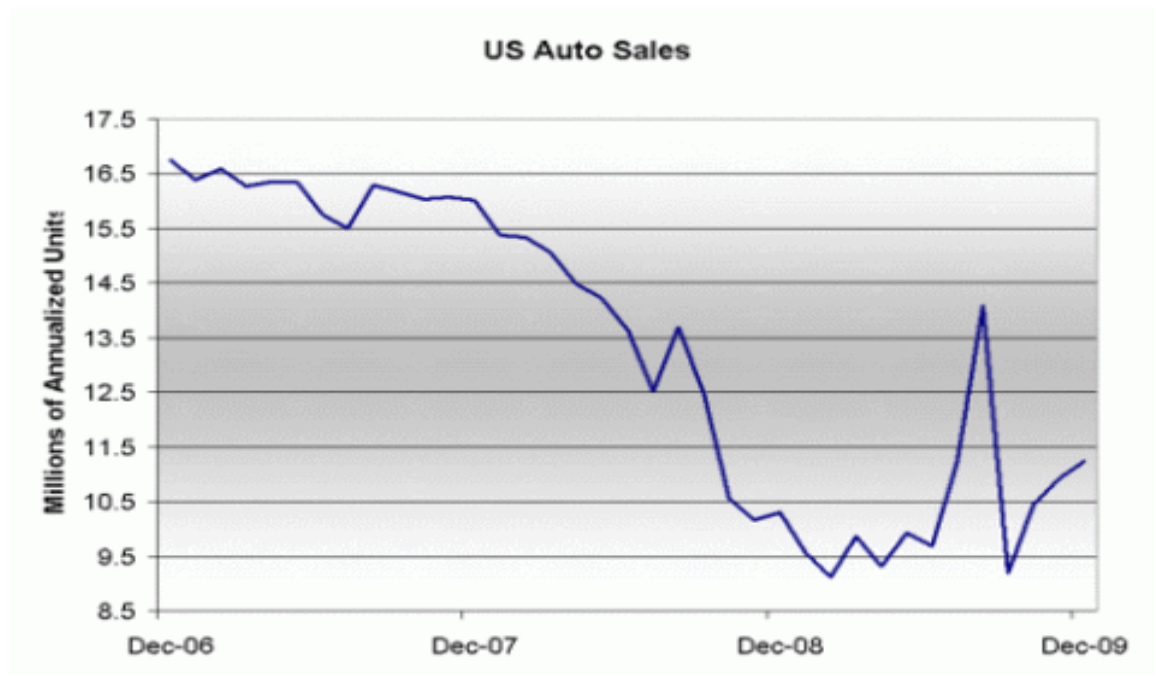
4. Crisis in North America

4.1 Crisis in the United States

4.1.1 General analysis

In 2008, a global recession struck which greatly affected the United States' economy. This recession had many negative impacts on various sectors of the American economy. One of the most prominent sectors was the automotive industry. Even before the recession there were many factors such as declining automobile sales and the lessening amount of credit present in the business which went on to create a more disastrous and widespread automotive industry crisis.

Figure 4-1 U.S. auto sales



Source: Bloomberg

[The above figure summarizes a brief picture of the slump in sales in automobiles in the

U.S market.]

The U.S government intervened in this matter since it threatened massive job losses as well as posed the potential for huge damage to the overall manufacturing sector. The government provided a financial bailout in order to support the companies in restructuring. Both GM and Chrysler filed separately for Chapter 11 bankruptcy protection.

Later on, General Motors emerged as a new firm from the bankruptcy. It was now majority-owned by the Treasury Department of the United States government. Chrysler was now owned by the United Auto Workers union as well as Fiat S.P.A. After their emergence from bankruptcy, they also terminated many of their agreements with their dealerships; General Motors also had to discontinue many of its brands due to its bankruptcy proceedings.

Of all the Big Three firms, only Ford survived without entering into bankruptcy mainly because of a huge line of credit that it got in 2007. This automotive crisis was a global phenomenon, but the car manufacturers in United States were more affected by this crisis as compared to any of the other foreign manufacturers.

Currently, all of the major American manufacturers have gone on to increase their sales as part of their ongoing strategies. This has resulted in some success as they have recently posted profits regarding their sales figures. As of 2012, the whole of the automotive industry had succeeded in its recovery efforts up to great extent. General Motors posted sales of more than nine million vehicles, which is greater than the sales of Toyota.

According to many analysts, the automotive crisis in the United States was made so much worse mainly because of improper business practices by the big auto companies there, namely the three that have been mentioned. When comparing the big American firms with other global giants, especially those which originate in Asia, then it can be seen that the Asian firms were not facing similar problems, even those whose businesses were situated in the U.S.

One of the main factors which increased the severity of this crisis even more was the expensive cost of fuel; this was linked to the global oil crisis, which occurred before the automotive crisis. The rise in fuel prices caused the general consumer to shift in their demand and they now opted to buy less of the larger vehicles such as pickup trucks or SUV's as compared to the other vehicles available in the market, since the larger vehicles tend to use more fuel.

Another major factor which aggravated the crisis was the considerably high cost of labor, which was greater in unionized industries. This included salaries, healthcare benefits, pensions, and other job-related benefits. Management, in an effort to procure labor peace, granted many concessions to their unions, which resulted in significant legacy costs as well as uncompetitive cost structures.

Moreover, the total amount of cars being sold in the United States market were significantly tied up with the credit of home equity lines, with some twenty four percent of total sales being financed through this way in 2006. When these loans' availability dried up due to the 2008 mortgage crisis, sales of vehicles declined drastically, from over fifteen million in 2006 to just above ten million in 2009.

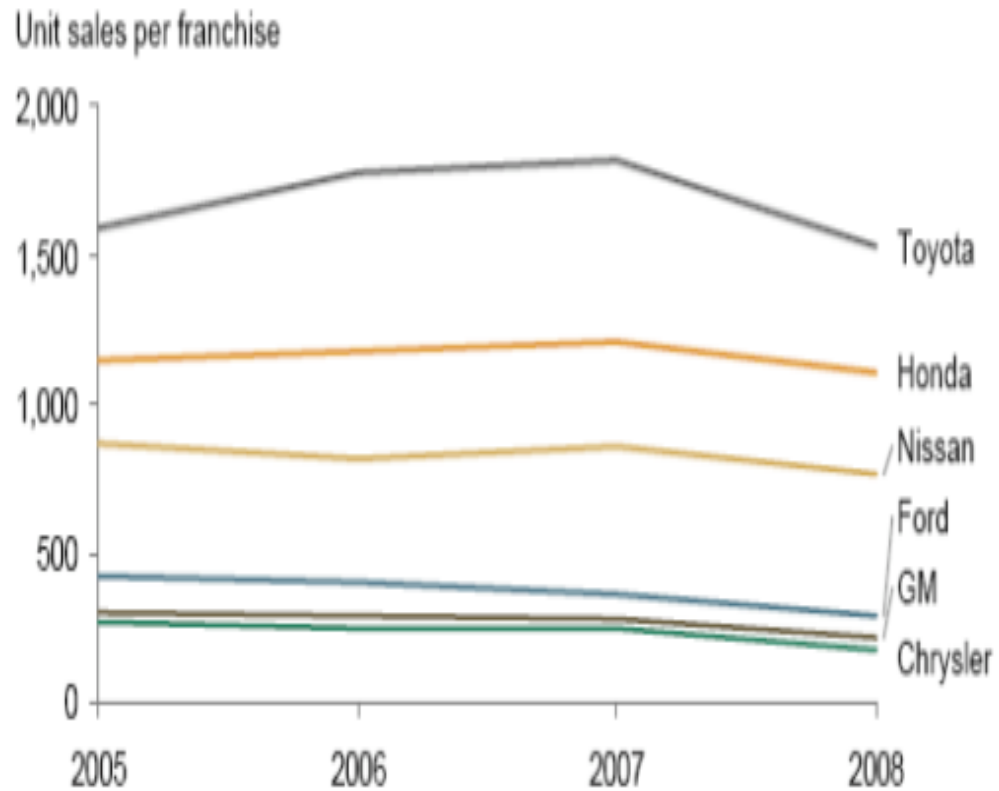
According to many consumer reports published in 2006, the best cars preferred by

critics as well as the consumers were of Asian origins. In some reports the favor toward Asian firms was so immense that the reports considered all of the top ten cars to be from Asian manufacturers, especially giving credit to the Japanese companies. (Figure 4-2) At the same time the Big Three American firms were making job cuts. An example of this is from Michigan which lost eighty three thousand auto manufacturing jobs between the fifteen year timeline from 1993-2008. Much of this cut was associated with the Big Three manufacturers.

At the time of the mentioned job cut period, many auto manufacturing jobs were created elsewhere, especially by the foreign firms in cities such as in Tennessee, Alabama, Kentucky, North and South Carolina, Texas, Mississippi, and Virginia. The total number of new jobs was more than 90,000 jobs. This also pressured the local American car-manufacturing firms in competitive terms.

Figure 4-2 Average Annual Sales for GM, Chrysler dealerships and their competitors (2005-2008)

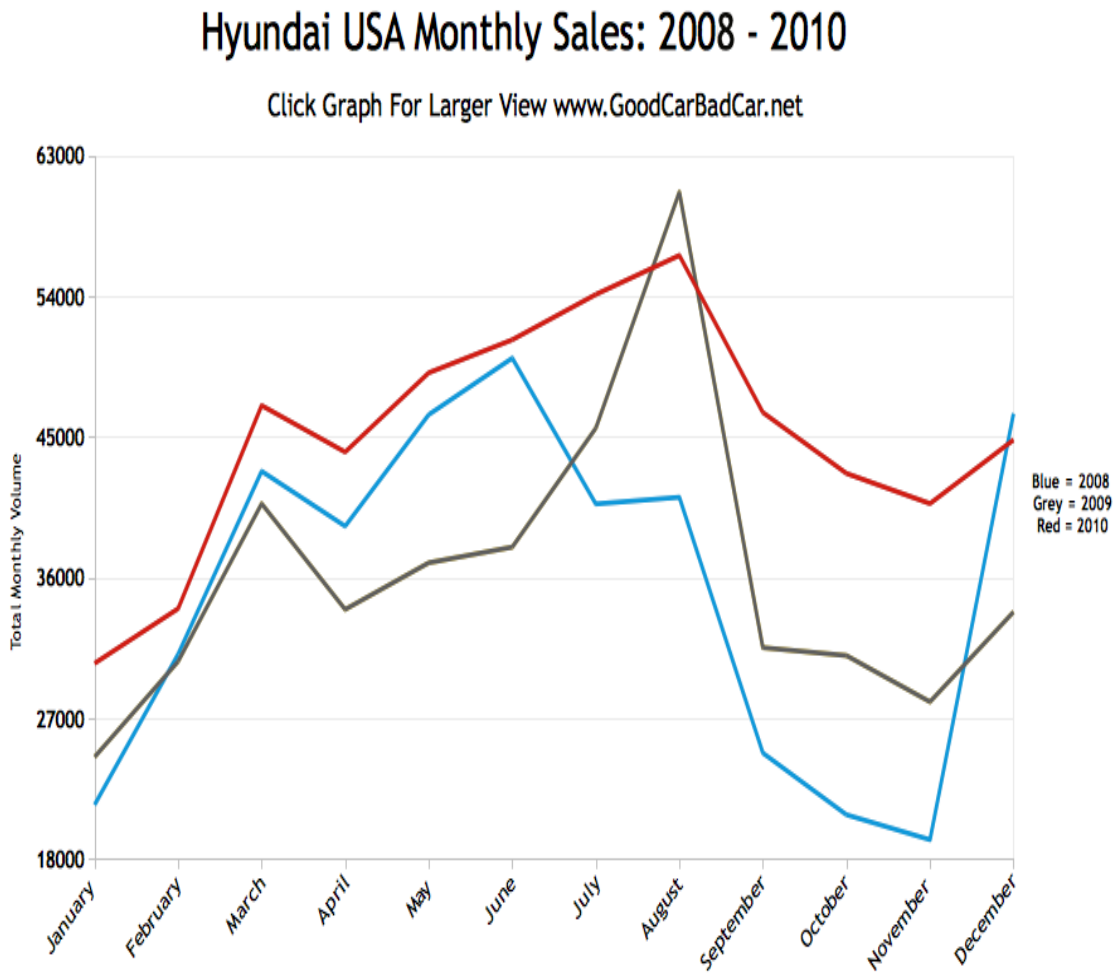
Figure 2: Average Annual Sales for GM, Chrysler Dealerships and Their Competitors (2005-2008)



Source: Boston Consulting Group

[As can be seen from above, the sales of the Big Three firms were significantly lower as compared to their rival firms in the United States even before the start of the automotive crisis.]

Figure 4-3 Hyundai USA monthly sales: 2008 - 2010

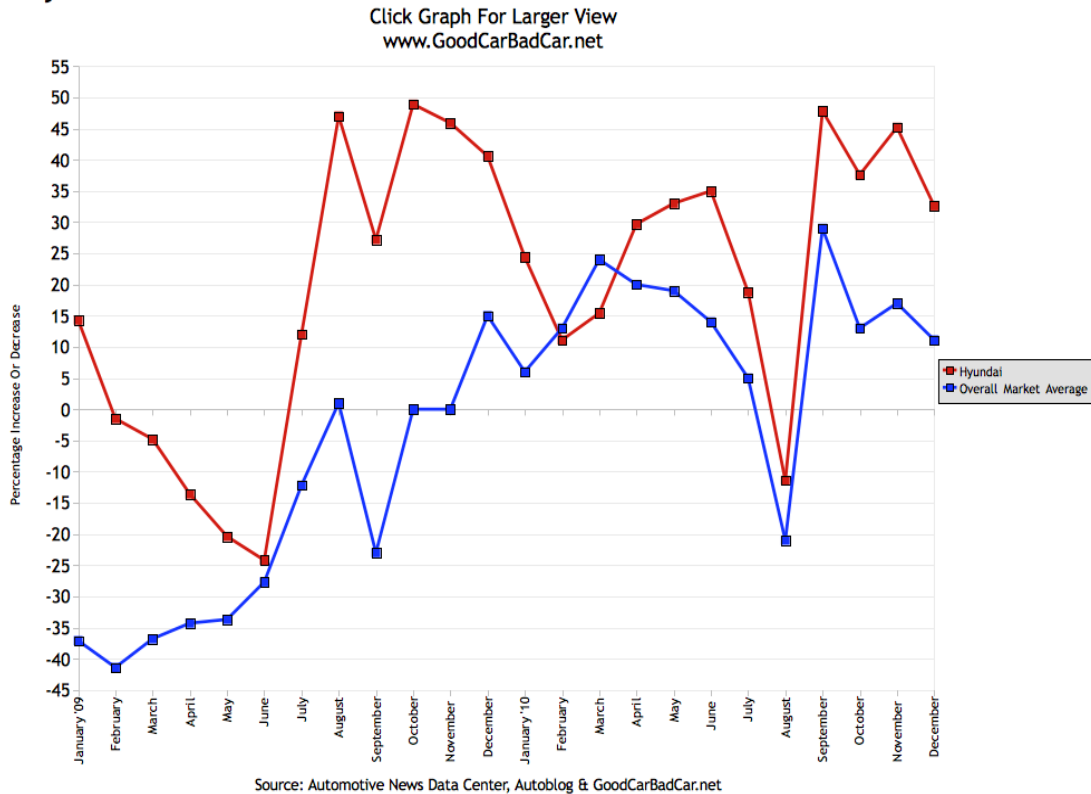


Source: GoodCarBadCar.net

[The above figure shows how Hyundai, which is a foreign manufacturer in the United States, performed during and after the crisis. It can be seen that foreign firms did well to cope with the crisis as compared to the local American firms.]

Figure 4-4 Hyundai U.S. sales growth vs. overall U.S. market growth

Hyundai U.S. Sales Growth vs. Overall U.S. Market Growth: 2009 & 2010



Source: GoodCarBadCar.net

[This chart also shows how prominent the foreign car manufacturers such as Hyundai were in growth which came after the crisis.]

4.1.2 Industrial data

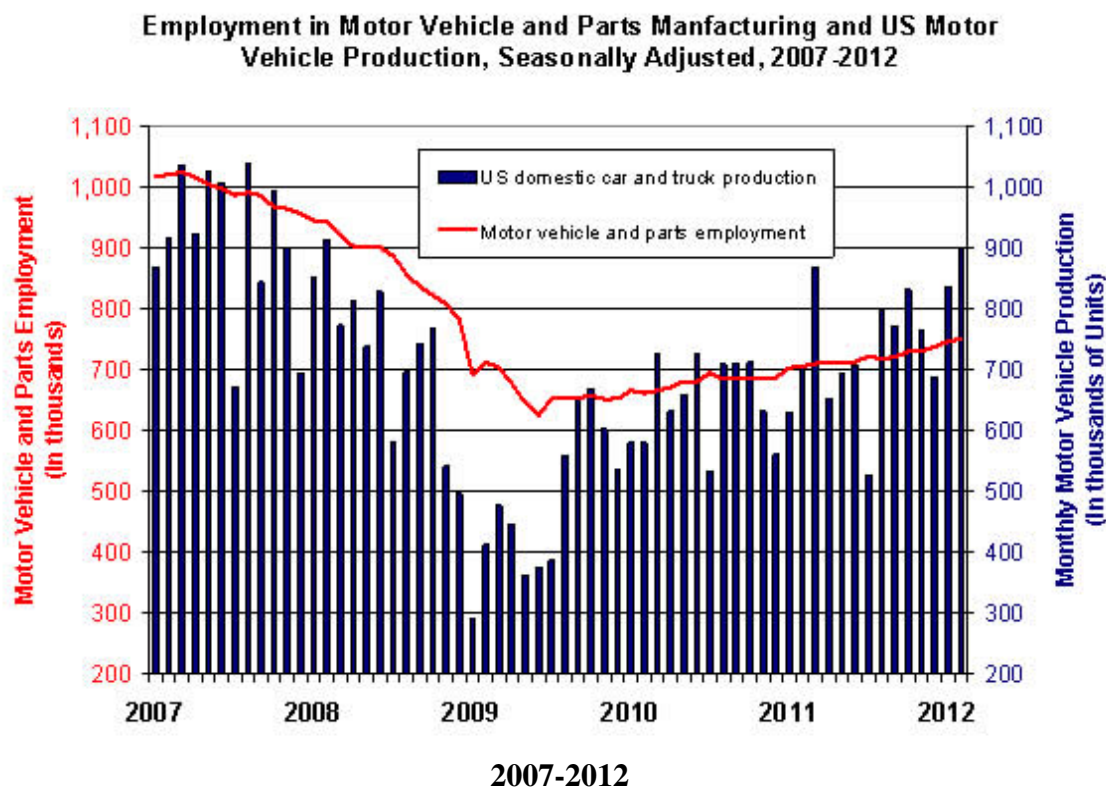
During the first half of 2008, the total employees in the Big Three firms, including car-dealers and parts suppliers, totaled at more than one and a half million. When looking at the entire employment figures related to the automotive industry – including the Big Three – then the total personnel this industry employed numbered at around 3.1 million in the U.S, including after-market service businesses. During the crisis, the employment rate in the automotive industry declined.

According to the United States Bureau of Labor Statistics the proper breakdown of workers in the automotive sector until September 2008 was as follows,: repair operations involved eight hundred and sixty-four thousand personnel, parts manufacturing involved five hundred and four thousand personnel, wholesale operations involved three hundred and forty thousand personnel, manufacturing involved one hundred and fourteen thousand personnel, and dealer operations had 1.2 million personnel.

Also, some estimated 2 million personnel were relying on the healthcare offered by the automotive industry, and seven hundred and seventy-five thousand retired personnel collected their pensions from this industry. General Motors was a leading employer, directly employing more than one hundred and twenty thousand employees in the United States.

The hourly wages being given to workers were relatively the same when comparing the offerings by the Big Three firms and the rest of the automotive industries. For example, the basic hourly wage earned by any UAW worker working for any of the Big Three was close to what was earned by any Honda or Toyota worker at their U.S plants. The average wage for an experienced UAW worker was close to \$28 an hour in early 2008.

Figure 4-5 Employment in Motor Vehicle and Parts Manufacturing and US Motor Vehicle Production, Seasonally Adjusted, 2007-2012



Source: United States Department of Labor

[The chart above shows the number of automotive job loss during the recession, which does not include employees from after-market services.]

For any new worker the rate of hourly wage was close to \$14 for an hour, therefore experience counted significantly here as the senior workers were offered better pay. A huge cost difference between the U.S. employees working for any firm with foreign origin and the UAW members came in fringe benefits. Here it should also be noted that UAW has been regarded as one of the most successful unions in America in terms of fighting for health benefits as well as generous pensions for its members.

The total compensation is often defined as the total cost of labor afforded by the

firms, and for General Motors it was close to \$70 per hour, while for Toyota it was about \$45 per hour. In this sense the average cost difference that existed between foreign nameplate firms and the Big Three was about \$25 per hour. This difference was considered to be enormous and impacted all the departments in the firm, especially wages, pension, and healthcare. “Pay rate should be according to experience of the employee.”¹⁹

Looking at the average annual wages for Big Three’s production workers then it was estimated to be around \$67,500 in the year 2007, and about \$80,000 for more skilled personnel. The overall ratio of retirees to workers varied in the Big Three. For every active worker at General Motors there were some four retirees calculated until the year 2006, at Chrysler the retirees or dependents numbered around two for a worker, and at Ford this was somewhere close to one and a half per worker. This data translated as the cost burden of legacy labor being much higher for General Motors as compared to any of its competitors.

According to many critics and business analysts, these huge labor costs, along with other costs such as product development, kept the Big Three firms from developing any high quality product which was essential for profits as well as for survival in a competitive environment.

The employees of foreign nameplate firms working in the United States were mainly non-unionized, whereas the Big Three firms were bound to their workforce through contracts with UAW. According to data provided by UAW, the total labor costs represented about eight percent of the entire cost of manufacturing as well as selling an

19 Timothy, Yeager J. Institutions, Transition Economies, and Economic Development. Boulder: Westview Press, 1998. 88.

automobile in 2006.

Here the great majority of costs came at creating a vehicle and transferring it to its dealership authority, and preparing it for sales which included engineering, marketing, design, and executive compensation. Any other related costs were not considered as either direct or indirect form of manufacturing labor.

In 2005 a story was uncovered by some of the leading news outlets claiming that the Big Three had paid more than ten thousand idled workers their complete salary and benefits in a program called the “Jobs Bank.” This program was created during the UAW’s labor contracts in 1984 with the Big Three, the purpose of which was to provide protection to the salaries of employees and discourage any sort of layoffs which might be expected later on. This was a significant point in the contracts between the automakers and UAW.

Here, the main interest of the union was to save jobs through a plan which guaranteed pay and other related benefits for the union members, especially those who were laid off due to any sort of technological progress or any new restructuring in the plant. In many of the cases the employees were being paid through the Jobs Bank only if they had exhausted both the company’s and the government’s unemployment benefits. Many of those employees were later placed in retraining.

Due to the process of Jobs Bank, the American automakers were obligated through contract to pay some ninety percent of the benefits and union wages to members of UAW who were not working, even when their manufacturing plants had been closed. According to this agreement, General Motors would pay out more than two billion dollars in Jobs Bank payments over a period of four years, Chrysler would allocate some \$450

million for its own program alongside another \$50 million which was reserved for salaried union employees, and for similar purposes Ford had also set aside some \$950 million.

According to many analysts, this Jobs Bank program was one of the biggest problems the Big Three firms faced during the automotive crisis and even before it. This program gave enormous amount of benefits to workers which resulted in a great deal of financial capital being badly appropriated; capital that could have been used by the car manufacturers for many other different things that might have given them a better chance of survival during the 2008 crisis. For example, they could have opted to invest more in their car manufacturing technology which was facing stiff competition from its Asian rivals, or they could have just used their capital to introduce new environmentally friendly technologies which could have also boosted their image in the general public.

This enormous sum of cash that was allotted in the Jobs Bank could also have been used in advertising campaigns by the Big Three firms. It is very important to create a level of confidence between the firms and the consumers by inform consumers about the qualities of the firm, how it intends to contribute towards the society in general, and what impact it already has made, all of which can be accomplished through advertising.

Looking at the number of brands held by the American firms. General Motors had a total of eight brands which were sold in America, which does not include GM's overseas brands such as Opel, Vauxhall, Holden, and GM Korea. It liquidated one of its brands because of bankruptcy. This stands in stark contrast to its rivals such as Toyota, which has only three brands in the U.S market. "Lesser number of brands is often more

preferred by big firms.”²⁰

“It is a very well known fact that more brands demand more marketing as well as product development expenditures,”²¹ this drives incremental costs which is relative to competition. According to some analysts, if General Motors could have reduced its overall brands from eight to three that would have saved them some five billion dollars on an annual basis. “Reduced brands are also favorable for many other reasons such as less expertise is required to maintain the business in terms of management and the common employees.”²²

“Less brands give the common people more obvious choices to choose from.”²³ If General Motors had fewer brands then it could have focused more on what the people demanded and provided them just that. In this way the pressure from the competition would have been relieved up to a certain extent as well.

Fewer brands would have given General Motors a better chance to survive a market crash scenario in which consumers’ ability to buy reduced drastically and where they often tend to sell instead of buying, something very similar to the 2008 crisis. Therefore this is also the reason that the Big Three suffered massive losses while their foreign counterparts with fewer brands were able to avoid a similar fate. “A reduction in the total number of brands demands consolidation or closing from the dealerships which often tends to change the franchise laws and this is a very expensive process for the

20 Zarembka, Arlene. The Urban Housing Crisis: Social, Economic, and Legal Issues and Proposals. New York: Greenwood Press, 1990. 88-89.

21 Chong, Lee H. Financial Liberalization and the Economic Crisis in Asia. New York: Routledge, 2003. 56.

22 Arestis, Philip, Michelle Baddeley and John McCombie. What Global Economic Crisis? New York: Palgrave Macmillan, 2001. 18.

23 Pempel, T. J. The Politics of the Asian Economic Crisis. New York: Cornell University Press, 1999. 4-5.

firm.”²⁴ For example, if General Motors was to retire one of its brands like Opel, then this whole process might have cost them some two billion dollars.

Taking a look at the control and number of dealerships related to the U.S.-based auto manufacturers. Chrysler and General Motors had some ten thousand dealerships between them alone, which employed an estimated five hundred thousand personnel. Besides this, General Motors also had many different other small dealership units which were spread across all of its eight brands. These dealerships were well protected and properly defined by the state laws, which made them very difficult to close without having to pay large fees. This made dealership reform challenging barring some sort of bankruptcy protection.

Looking at the bondholders, General Motors was carrying some forty three billion dollars worth of debt burden on itself. This also came with nearly three billion dollars in interest per year on its debt. If the bondholders could have swapped the stakes for equity, which does not pay any interest, then General Motors’ overall interest as well as debt burden could have been reduced greatly. “Reducing the debt burden is necessary for any firm in order to achieve better targets.”²⁵

However it was also a fact that the bondholders of General Motors and Chrysler completely rejected any offer of debt swap, complaining that it provided unequal treatment to them as compared to UAW. They cited that their overall debt was more than twice that of UAW’s healthcare trust. In this scenario, UAW would have been offered some fifty to forty percent stake in the newly formed Chrysler and General Motors

24 Kuotsai, Liou Tom. Managing Economic Development in Asia: From Economic Miracle to Financial Crisis. Westport: Praeger, 2002. 54.

25 Maksakovskii, Pavel V. and Day B Richard. The capitalist cycle : an essay on the Marxist theory of the cycle. Boston: Leiden , 2004. 7.

respectively, whereas the bondholders would have just gained 33 cents per dollar for Chrysler and ten percent stake in the new General Motors. With the approval of U.S. Treasury, the original offer for the bondholders was later on amended in order to include a further fifteen percent stake.

The bondholders also complained that the United States government had interfered in matters, which had bypassed the bigger precedence of claims by the debt holders in favor of the UAW due to UAW's political contributions to the President of the United States Barack Obama. There were even cases where the President openly accused the bondholders of Chrysler for being speculators. This happened after they rejected the final offer from the government which in turn made Chrysler file for bankruptcy. A General Motors bondholder described this situation as comparable to a socialist state and said that he had not expected this sort of reaction from the government at all.

Some bondholders of Chrysler claimed to receive death threats after the judge in the bankruptcy case rejected a claim to protect the bondholder's anonymity. The hedge funds involved said that their clients varied widely, including university endowments and pension funds. Somewhere around seven billion dollars worth of General Motors bonds were held by the so called "Mom and Pop-type investors." One lawyer assessing the case described this scenario as common retirees versus autoworker retirees.

Unsurprisingly, any recapitalization effort would have completely cleared out the value of any existing common stock shares, which had already declined very significantly.

4.1.3 Impact on the economy

“The automobile industry is a very important component in the overall American economy.”²⁶ Many economists used the data related to this industry that was observed in the years 2007 and 2008 in order to make estimates about how a meltdown would actually play out in the summer of 2008. This was also done to set proper benchmarks which could help the policymakers to understand the proper effect of bankruptcies. “Bankruptcy of a business also affects heavily on its related businesses.”²⁷

These, alongside many other estimates, were greatly discussed by the policymakers during late 2008. Many topics were discussed such as what if the Big Three were to shut down. In that case it was estimated that the automotive industry would lose about quarter of a million jobs which were categorized as highly paid ones. Furthermore a loss of about a million highly paid jobs was estimated at the local dealers and suppliers end, plus the loss of over one and a half million additional jobs, which were related to different other sectors of economy. “More often the victims of job losses are the less experienced workers.”²⁸

A total estimate when combining all of these job losses put the total tally at close to three million in job losses. Other estimates calculated that the shutdown of the Big Three firms would cause a great decline in the national personal income level, which would occur by some one hundred and fifty billion dollars in the first year and some four

26 Mazier, Jacques, Maurice Baslé and Jean-François Vidal Vidal. When Economic Crises Endure. Armonk&London: M.E. Sharpe, 1999. 17.

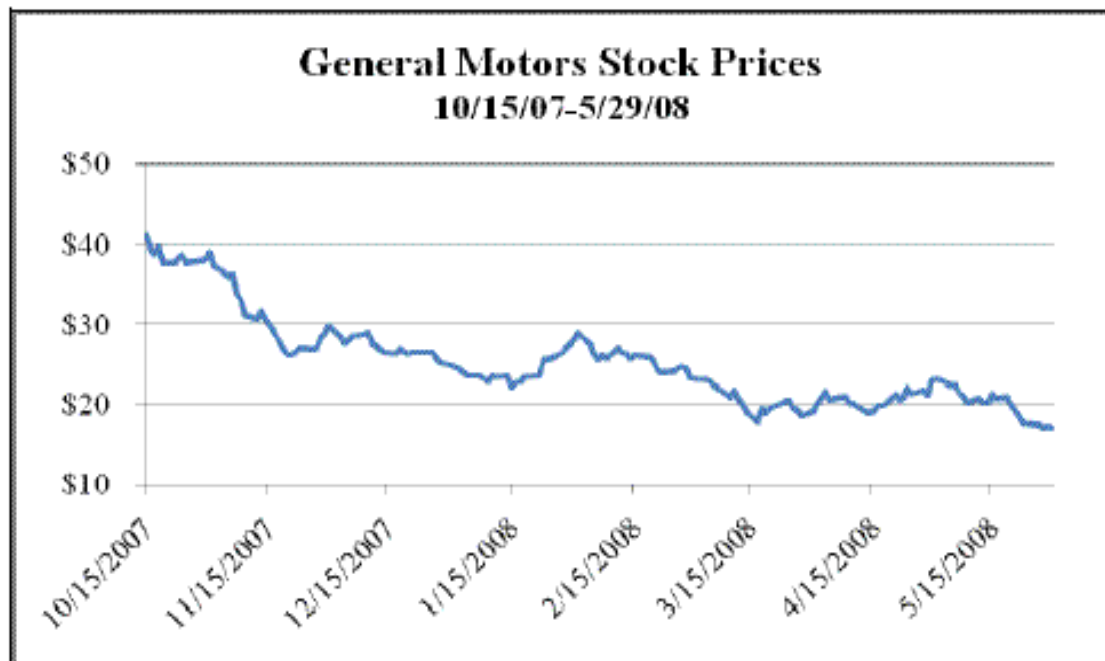
27 White, Gordon. The Chinese State in the Era of Economic Reform: The Road to Crisis. New York: M.E. Sharpe, 1991.44-47

28 Houts, Peter S., Paul D. Cleary and Teh-Wei Hu. The Three Mile Island Crisis: Psychological, Social, and Economic Impacts on the Surrounding Population. University Park and London: The Pennsylvania State University Press, 1988. 17.

hundred billion dollars over the next three years. Many economists also concluded that if Chrysler and General Motors were to disappear completely then there could be an increment of about a million imported vehicles every year, enough to remove some twenty five billion dollars from the American economy. It would also reduce the GDP by about 0.2 percent on an annual basis.

Figure 4-6 General Motors stock prices (10/15/07-5/29/08)

Graph 1



Source: Marketoracle.co.uk

[The above graph shows the impact of the automotive crisis on the prices of stock of General Motors. It clearly shows how much negative effect the firm suffered, not just because of a lack of public interest in buying vehicles but rather through the mismanagement from the top level which went on to cause such a crash in prices.]

Assessing, some of the claims which asserted that any failure would not be a threat to the economy, in the later half of 2008, some investment managers claimed that if the key automakers, especially the Big Three firms, were to shut down completely then many of the foreign firms such as Toyota and Honda would find it easy to set up new plants in America. This process would not create any long-term loss to the economy especially concerning the employment sector related to the automotive industries.

Some analysts also stated that any giant corporation failing may be a threat for the auto industry in general, but it was better to liquidate the firms completely rather than keeping them up artificially in the hope of any improvement expected in the future. In this scenario, those who presented their perspectives compared the 2008 crisis to the dismantling of Daewoo in South Korea during 1999. The impact of the decision to dismantle Daewoo on the South Korean economy was much greater than that by the Big Three automaker firms in the United States. “In troubled times, firms often tend to focus on help from the government’s treasury.”²⁹

Focusing on the Korean example, the overall belief that Korean conglomerates especially Daewoo, were just too huge to fail caused many of the investors and bankers to waste their money continuously in bailouts, despite their overall poor business plans and numerous unprofitable projects. The result of this was that Daewoo was not able to pay off its loans. “Selling of assets is a common practice for any firm facing financial crisis.”³⁰

Once this perception that bigger firms were immune to failure was dispelled,

29 Bell, David E. and Micheal R. Reich. Health, Nutrition, and Economic Crises: Approaches to Policy in the Third World. Dover: Auburn House, 1988. 35-37.

30 Bush, Ray. Economic Crisis and the Politics of Reform in Egypt. Boulder: Westview Press, 1999. 12-13.

many large conglomerates were no longer considered to be safe for investments. Therefore the investors and bankers started creating new opportunities in those areas which had been starved for capital in the past such as small firms and entrepreneurs. “No firm is immune from collapse.”³¹

This caused the Korean GDP to actually recover better than expected after the unwinding of Daewoo. Another similar example comes from Japan during the decade of 1990’s, where the banks allowed their funding to flow into the unprofitable firms in order to keep them alive. They also argued that those firms were just too huge to fail. “Failure of big firms often tends to bring mass unemployment.”³² However, many of those firms were greatly debt-ridden and therefore required much more in order to survive than just bailout funds. Many economists in Japan described this process the nation’s “loser paradise.” It was also seen that the Japanese economy properly recovered only after this paradise period ended. “High debt is often the main cause of any firm’s demise.”³³

Many industry experts, media commentators, and academics made a number of recommendations concerning the restructuring as well as reforming of the Big Three firms. These recommendations included introducing a method of court-supervision, which could assist in reorganizing the firms. Although a court process is considered to be very lengthy, it often provides the best possible solution for all of the stakeholders involved. Moreover a court process often tends to have the backing of the federal government, especially in this case where the firms had relied so much on the

31 Azzedine, Layachi . Economic Crisis and Political Change in North Africa. Westport: Praeger Publishers, 1998. 23-25.

32 Turley , Gerard and Peter J Luke. Transition Economics Two Decades On. London: Routledge, 2010. 62.

33 Blomstrom, Magnus and Lundahl Mats. Economic Crisis in Africa. New York : Routledge, 1993. 3.

government that it should have been a choice worth more focus for all the parties involved.

Other reorganizing processes included allowing the public to have more stake in the firms which were heavily affected because of the crisis. Although this process might bring some capital from the general public, it is still far from attaining success as the people may show hesitance in taking stake in such firms when those firms are deemed so fragile by numerous open sources such as media outlets. “The failing of any big firm can result in massive unemployment in related sectors as well.”³⁴

4.1.4 Alternatives to bankruptcy

The bankruptcy-related topics are centered on the code of conduct known as Chapter 11 ; this is also known as restructuring and is commonly used in giving a glimmer of hope to a corporation. This involves renegotiating contracts, selling the assets or other related components of business for the sake of attaining cash, obtaining forgiveness in debt, or just a general reform within the corporation.

The alternative to the Chapter 11 is known as Chapter 7. This is put into use in order to liquidate or shut down any firm or to sell its components. The proceeds attained through Chapter 7 go to the debt holders. In both of the mentioned processes, the shareholders usually lose their investments and the control of the corporation is given to the debt holders of the corporation. During the automotive crisis of 2008 it was often debated as to which chapter to apply in order to address the crisis. Chapter 11 was ultimately thought to be a more feasible choice.

There are many arguments in favor of Chapter 11. According to analysts this

34 Dale, Tussing A. Poverty in a Dual Economy. New York : Martin's Press, 1975. 34-35.

would have made the automotive industry more sustainable as well as competitive; the airline industry was given as an example in this case. Chapter 11 was also thought to allow the city of Detroit to fully reorganize its job market, which was feared by many to be about to go through immense losses. “Job markets go through immense jolts when a big firm collapses.”³⁵

Many opponents of a bailout for the auto industry thought that the problems of automakers could be resolved in a better way through bankruptcy court, which involves authorizing legal rights to dissolve any existing contracts and shedding the costs and any debts which the firm can not afford any more. The downside is that “court proceedings tend to take a lot of time.”³⁶

The opponents also suggested that complete control of the government over the car industry would be ineffective in solving the problems since the overall actions of the industry could be influenced by official governmental policies. Many politicians supported the bankruptcy procedure as compared to the federal government’s aid to the automotive industry, but none proposed any solid solution to the problem which was acceptable to all of the parties involved in the crisis.

The Troubled Asset Relief Program (TARP) funds which were introduced by the United States government in 2008 involved the purchase of assets as well as equity from the leading financial institutions in order to strengthen the financial sector. This was signed into law in October 2008. It is important to mention TARP because many commentators as well as politicians supported this program as a way to help the

35 Dunning, John H. Regions, Globalization, and the Knowledge-Based Economy. Oxford: Oxford University Press, 2002. 18.

36 Toporowski, Jan. Political Economy and the New Capitalism: Essays in Honour of Sam Aaronovitch. London: Routledge, 2000. 56.

automotive industry.

Critics of Chapter 11 argued that as a restructuring process the consumers would be rather unwilling to purchase any vehicle from the bankrupt automaker, since the ability of automakers to support their warranty is the main thing which affects consumers' decision to purchase. Advocates have noted that either the private lenders or the government could have created a fund which would have enabled warranty coverage.

General Motors argued that a bankruptcy procedure could threaten jobs as well as the solvency of the American federal government's pension programs such as Pension Benefit Guaranty Corporation (PBGC). The Director of PBGC said that General Motors had failed to provide an answer related to the funding status of its pension plan. The pension funds of General Motors were thought to have enough cash for its related obligations but some reports suggested that the pension could be under-funded by some \$18 billion by the end of 2008. "Pensioners often face cuts when a firm goes into any financial trouble."³⁷ Chapter 11 bankruptcy is defined as prepackaged when all of the important stakeholders have agreed on what would happen during the proceedings of bankruptcy; this enables them to have much more certainty regarding any outcomes as well as less time spent in bankruptcy protection. Many advocates indicated that this form of prepackaged bankruptcy is often more preferable, while its critics argued that it was very unlikely that all the relative stakeholders could agree on the given terms while staying outside of bankruptcy.

A government facilitated solution was advocated by the Brookings Institution in which the assets of Big Three firms were to be transferred or sold to some other

37 Colin, Williams. Informal Employment in Advanced Economies: Implications for Work and Welfare. London: Routledge, 1998. 44-45.

corporation which was considered to be better in deploying employee and plant resources. The Brookings Institution further stated that the government in this scenario could play a very productive role by providing short-term infusion of capital alongside strict repayment rules, which would require the automakers to give away or sell their overall assets to other more successful firms.

In the statement it was also argued that the cars made by the Big Three were not entirely preferred by the American public. This problem could not be solved through means of bankruptcy restructuring which is focused initially on considerations related to cost-side like benefits and wages. “Job related benefits are often cut when a firm faces any financial crisis.”³⁸

Another key notion advocated was that the private industry should create a partnership alongside government that can transform the entire automotive industry; this could be done by creating a so-called “high mileage vehicle economy” that is based on fuel cell and hybrid cars whose features includes less carbon emission and more mileage for the general consumer who utilizes it. “Investment in technology keeps ahead in competition.”³⁹

The loans for such a project were sought on an urgent basis alongside conditioning. This notion also included a U.S strategy for creating an automotive technological leadership that would greatly improve the energy, climate, and national security, and the overall American global competitiveness. “Technology can be a very

38 Teichova, Alice and Herbert Matis. Nation, State and the Economy in History. Cambridge: Cambridge University Press, 2003. 18.

39 Everling, Clark. Social economy. London: Routledge, 1997. 32.

important factor in any competitive environment.”⁴⁰ There were also many arguments presented against government intervention in which some sources stated that by bailing out the failing firms, the government was confiscating capital from the productive sources of economy and providing it to the failing ones. By helping the firms with unsustainable or obsolete business models, the federal government prevented their resources from being completely liquidated and should have instead made it available for other firms which could have put those resources into better and more productive use.

“A very essential element of a growing a free market is that the successes as well as failures should be allowed to happen whenever they are earned.”⁴¹ Therefore through the process of bailout which involves the resources given from the failing firms rather than to the successful ones, this natural procedure is reversed.

In December of 2008, a prominent opinion column stated that there was no bailout present for horse and buggy industries some hundred years ago when cars were replacing them, and that the standards of living overall are now greater because the losers and winners were determined at that time by the consumers rather than the politicians. The writer of this column also blamed the gradual decline of the Big Three firms on the economic policies adopted by some states. It also argued that the Japanese car manufacturers preferred to build their plants in those U.S states whose policies were not as hostile as some other ones.

In 2009, Ernst & Young reported that the policies which protect companies can cause reduced incentives for many entrepreneurs to invest in their innovative ideas and for any large corporation to invest in R&D because they do not face any competitive

40 Kornai, Janos. The Socialiest System. Oxford: Claendon Press, 1992. 72.

41 Brabant, Van J. The political Economy of Transition. Routledge, 1998. 5.

pressure which can help them to constantly improve their produced items. This pressure is very essential for them to maintain or improve their share in market. “Firms should invest appropriately towards R&D.”⁴²

Many critics also urged the U.S government to remove the senior management of the Big Three firms, especially that of General Motors. Their main reasoning for this was that such removals are very typical in any bailout procedures. In terms of mergers, if two or more firms from either the Big Three or any other crisis-impacted firms were to merge then that could have allowed a great deal of cost savings, as well as more focus being given to the more profitable brands.

However, the UAW opposed any such move as it may have involved a great deal of layoffs. Chrysler and General Motors held many meetings regarding the merger process, which went on towards no concrete results. There are many points which are associated with the failure of the merger such as the agreed share of resources among the firms, the proportion of layoffs in both firms and so on. “Mergers often result in layoffs rather than hiring.”⁴³

The automotive crisis in the U.S can be compared to the scenario faced by British Leyland during the decade of 1970’s; at that time the British firm had some thirty-six percent of the total market share in U.K. Because of the crisis the British government nationalized as well as invested many billions of pounds in the troubled business which at that time was facing a great deal of competition from its European counterparts.

42 McKee, David L. External Linkages and Growth in Small Economies. Westport: Praeger Press, 1994. 22.

43 Warner, Malcolm. Management in Transition Economies. New York: Routledge, 2004. 37-38.

“Nationalization of a firm often tends to shrink its productive capacity.”⁴⁴

British Leyland was also facing many questions regarding the quality of its products and therefore this also caused great problems for its ability to compete in an ever-competitive environment. In this instance, the firm reduced its product line and focused greatly on its profitable ventures, which were the Rover and Austin brands. Afterwards, in the 1980’s, the firm had some relative success in terms of models like the Austin Metro.

4.1.5 The review of the bailout processes

In late 2008, a U.S senate hearing took place on the topic of the automotive crisis, which included the presence of the management of Ford, General Motors, and Chrysler. The heads of the Big Three firms explained that they required the financial assistance of some twenty-five billion dollars in order to avoid bankruptcy. At the hearing, the Senate was divided on many points in the overall issue.

In this case the Republican senators were not willing to give any sort of aid; some of them even desired bankruptcy as the best possible option since it would then free the auto manufacturers from their employment deals with the unions. At the same time the Democrats wanted action must be taken sooner rather than later which was in line with then President Elect Barack Obama’s stance regarding the matter.

A senior officer from the Big Three firms was quoted as saying that there might be a job loss of more than three million inside the first year of the crisis if the automotive industry failed. He also said that it is about much more than just Detroit. The main aim here should be to save the U.S economy from any catastrophic meltdown which may

44 Olson, Mancur. A Not-So-Dismal Science. Oxford: Oxford University Press, 2000. 40.

result from such losses.

In November 2008, the shares of General Motors fell precipitously to their lowest level since the last century's Great Depression on the rumor that any hope of a bailout had diminished. Shares of other car manufacturers such as Ford also fell greatly. However, the prices of these shares recovered later on due to the rumors about bipartisan progress regarding a bailout. In the same month, an article in the Detroit Free Press claimed that the UAW was thinking about ending their Jobs Bank program as a condition regarding the federal bailout.

The leading Democratic Party leaders sent letters to the Big Three firm's CEOs, calling on them to produce a credible restructuring plan by December 2008 which would involve significant sacrifices as well as major changes in the ways they conducted their businesses if they wanted to expect any assistance from the government. The letter also included different requirements for the different forecasts under various assumptions, situation assessments, taxpayer protections, executive and dividend pay restrictions, transparent reporting towards an oversight body, and various other approaches which were involved in covering the pension and healthcare obligations.

In December 2008, the Big Three firms submitted to Congressional leaders their revised plans which included many drastic measures like lowering the pay of executives, an overall reduction in the total number of brands, and the refinancing of company debt. After this assessment it was estimated that the total bailout funds required by the firms had now increased to more than thirty-four billion dollars. The auto firms also added that if help was not provided quickly then things might get worse and the sum of total funding might increase even more.

Chrysler argued that it required seven billion dollars by the month's end just to stay operational, whereas General Motors requested four billion dollars immediately. In an interview, President Obama said that the last thing he wanted to see happen was for the auto industry to completely disappear. He also said that he was concerned that the government did not want to put tens of billions of dollars into the auto industry only to have the firms ask for more later on.

In the same month, the negotiators for the Congressional bailout revealed the terms of a deal which was emerging between the Congress and the White House, according to which a fifteen billion dollar short-term bailout for the Big Three firms would be overseen by a federal trustee. The Committee for House Financial Services released a copy of the then proposed package for financial bailout for the Big Three firms.

This bill proposed an appointment of a trustee to oversee the restructuring efforts of the automakers, put restrictions on the bonuses received by the executives of the firms, reduced golden parachute packages, and demanded the automakers divest or sell any of their privately leased or owned aircraft. "Management of a firm should be an example to its employees in terms of living a simple lifestyle."⁴⁵

However the bill failed to pass on December 11, 2008. A statement issued by General Motors expressed its great disappointment regarding this failure; they stated that they would assess all of their options to carry on with the restructuring and to determine a means of getting through the economic crisis. Chrysler stated that it was greatly disappointed by the rejection of the bill but that it would continue to pursue any workable solution that was essential for the future of the firm.

45 Pressman, Steven. Interactions in Political Economy. New York: Routledge, 1996. 4-5.

On December 19, 2008, President George W. Bush publicly announced that he had given approval to the bailout plan; this would help in providing loans of more than seventeen billion dollars to the American carmakers Chrysler and General Motors. He also stated that under the current economic conditions it was necessary to allow the American auto industry to have the funds and that if this was not done then an immediate collapse of the entire auto industry was inevitable, and therefore everything must be done in order to avoid it.

George W. Bush provided some thirteen billion dollars on an immediate basis, followed by a pledge of four billion dollars through February 2009. These funds were to be available through the Emergency Economic Stabilization act of 2008. In total, Chrysler would get four billion dollars, and General Motors would receive more than nine billion dollars.

However, it was also argued that the U.S Treasury lacked the proper authority to direct the funds received from TARP towards the automakers because TARP was limited to provide help to a selected number of financial institutions which the federal government desired to bail out. This was stated under TARP's Section 102. Another point of argument here was that the usage of TARP's funds towards the automakers was something which went against the wishes of Congress since Congress itself issued those limitations helping only a selected number of financial institutions.

This debate was later laid to rest when on December 19, 2008, President George W. Bush used his powers to declare that the funds associated with TARP could be spent the way he personally directed, thereby declaring Section 102 to be void.

The loan provided by the federal government would help General Motors avoid

going into immediate bankruptcy. The loans required the automakers to greatly restructure their overall operations and to show long-term viability. Later on during the administration of President Obama in February 2009, the government would assess the progress made by the automakers according to the conditions set by the loans.

If the given conditions were met, then and only then would the federal government be liable to provide more aid or to force the firms to repay their loans and face bankruptcy. It was decided that the loans provided by the government would have a five percent interest rate but this could increase up to ten percent if the automakers defaulted on their payments and any concession towards them was not preferred.

During the Obama Administration, a proposal of so-called “car czar” was widely considered but later abandoned mainly because of a proposed second round of lending for the automakers. Around mid-February 2009, the automakers Chrysler and General Motors did apply for additional funds. President Obama’s task force related to the auto industry was created in the same month of February, and it began to hold meetings soon after its formation. “Monopoly in any business often leads towards unfair practices.”⁴⁶

On February 18, 2009, Chrysler and General Motors again approached the federal government regarding having a second loan worth \$21.6 billion.⁴⁷ In this case Chrysler would get five billion dollars while the rest of the funds would be allotted to General Motors. According to General Motors, it agreed to shed off forty-seven thousand jobs, liquidate twelve car models, and close five of its plants as a part of its restructuring process.

46 Winiiecki, Jan. Transition Economies and Foreign Trade. London: Routledge, 2002. 69-70.

47 BBC News. US car giants seek \$21bn fundings. 18 February 2009. 10 August 2012 <<http://news.bbc.co.uk/2/hi/business/7893574.stm>>.

Chrysler agreed to eliminate three thousand jobs, slash an entire shift from the production line, and liquidate three of its models. General Motors was also considering whether to sell off its Swedish subsidiary known as Saab, but it did not mention any plan for what to do with its British subsidiary Vauxhall or the German subsidiary Opel.

Chrysler applied for Chapter 11 bankruptcy on April 30, 2009, after its talks with its lenders broke down. The next month on May 15, Chrysler announced that it planned to shut down twenty-five percent of its entire American dealerships, as related to its restructuring process. Only few days after approaching the American federal government for help in seeking funding, General Motors published severe losses of around ten billion dollars during the final three months of 2008. This brought the entire losses of General Motors to more than thirty billion dollars.

Adding to this data, during 2007 General Motors suffered losses worth thirty-eight billion dollars. In accordance to its published losses General Motors conceded that it desired the auditors to raise concerns about its viability in the future when it intended to publish its annual report due in March. All of this was a way of saying that the firm was going through a severe crisis in which it did not have many options as to what to do.

In June 2009, General Motors applied for Chapter 11 bankruptcy, due to its failure in successfully negotiating deals with the bondholders. General Motors became a largely nationalized firm on the day on which the application for bankruptcy was made: the American government owned sixty percent of it and the Canadian government owned some twelve percent.

The employees owned the remaining stakes in the firm. An application in a New York court marked the failure of General Motors as the biggest ever-industrial demise in

American history. The firm also announced that it would shut down nine more of its plants as well as idling three. Its chief executive made an appeal to the customers to give the firm another opportunity, claiming that the General Motors which had let everyone down was now gone. "Consumer satisfaction is the key for a firm's success."⁴⁸

In May 2009, a news article claimed that some seven to eight weeks after President Obama's administration dismissed the CEO of General Motors G. Wagoner Jr. he had yet to receive some twenty billion dollars worth of severance package which the firm had contractually promised him. In February 2009, an article reported by CNN claimed that the bailout process had cost the American taxpayers around \$130 billion.

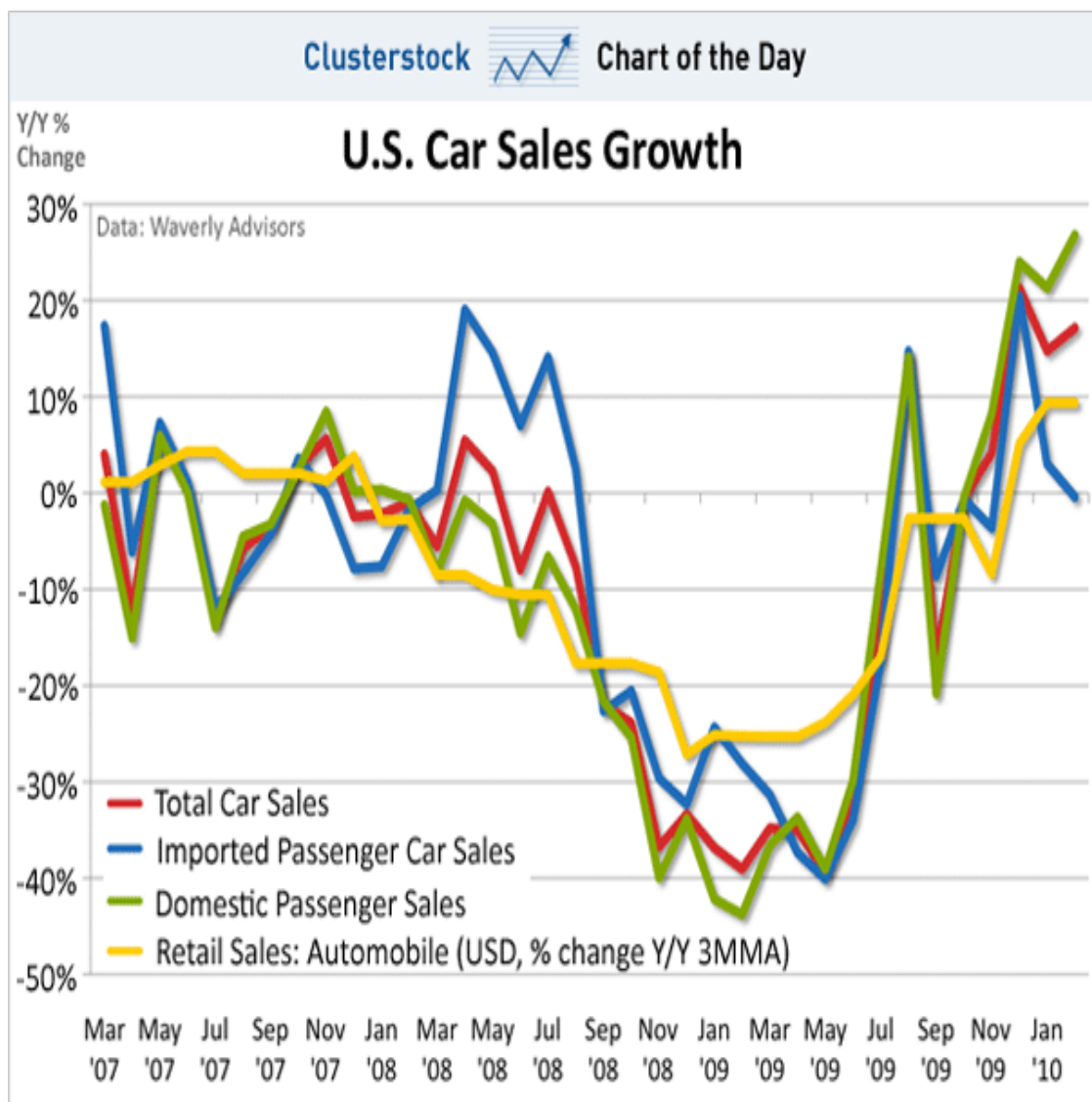
This news created huge unrest among the general public. Many protested and demanded that their money be spent on other, more justified causes. Many critics also argued that funding the bailout process was like throwing the money in a bottomless pit in which it had no chance of any return on the investment and that the funds could have been allotted for better purposes rather than giving it to the failing car giants. This also created great problems for the newly elected Obama administration as it feared a drop in its approval ratings.

As of June 2009, according to various sources the Obama and Bush administrations had spent more than eighty billion dollars on the automotive industry. In May 2011, Chrysler reported that it had repaid the money to the Canadian and American treasuries, much earlier than when it was supposed to.

With the government bailout, US car sales rebounded after 2009.

48 Tompson, Williams R. The Emergence of the Global Political Economy. London: Routledge, 2000. 77.

Figure 4-7 U.S. car sales growth



Source: Waverly Advisors

[The figure above shows the recovery in automobile sales in the US.]

4.1.6 Dealing with the fallout

One of the main things which greatly concerned the auto manufacturers was their public image and how the crisis affected it. In December 2008, General Motors introduced a new advertisement in which the firm apologized to the public for violating the consumer's trust as well as disappointing the consumer. They also promised to make future commitments to regain focus on the key brands and move away from the usual SUV's and pickups. The firm declared that it needed to make such a statement because it was deemed necessary as the mainstream media was continuously providing a grim picture regarding GM and their role in the crisis. "Positive public image is essential for the success of any business."⁴⁹

According to various news media outlets, the CEO's of the Big Three who attended the Congressional hearing on November 19, 2008, in Washington D.C in order to request a bailout for their firms traveled to the destination by the means of their own private luxury jets. An article on CNN on November 19 said that many Senators as well as other representatives argued that it was very difficult to provide financial assistance to the automakers when their CEOs tend to have such a luxury lifestyle even amid such a crisis.

For many these careless actions taken by the corporate representatives set a clear tone which was becoming immensely unpopular among the rest of the public as well as the government itself. The House Speaker issued a statement that until the car manufacturers showed a viable and working plan, the House simply could not give them

⁴⁹ Mansfield, Edward A. The Political Economy of Regionalism. New York: Columbia University Press, 1997. 7.

the capital which they desired. The House Speaker also demanded that the automakers submit more convincing turnaround plans by early December of 2008.

Another article which appeared on CNN in November 2008 quoted the president of a well known non-profit firm saying that the CEO's were arriving in Washington in order to beg the common taxpayers to help them out, yet it was completely unnecessary to make the trip via a flight which cost twenty thousand dollars whereas the same distance could have been covered using a mere five hundred dollar travel arrangement. Though some critics argued that it was not known if the original cost for the CEO's trip was actually twenty thousand dollars, but rather a estimation, in response to all of these criticisms, in December 2008 it was reported that many of the top CEO's of the leading firms had decided to sell off their corporate luxury jet fleets to create a better public perception about them.

For the December 2008 hearing, all three of the CEO's of the Big Three firms choose to drove separately to Washington. For this purpose they chose the latest vehicles in hybrid electric technology because of the fierce criticism they had faced when they arrived in their personal jets for the previous month's hearing.

From the perspective of a common person, the Big Three firms had an extremely negative view regarding energy conservation. The sections of the American consumers which are greatly concerned regarding ecology have little or no sympathy for the background of the big automaker firms. Here the public tends to accuse them of profiteering and deliberately destroying the system of mass-transportation as well as the privately-owned railways during the decades from the 1920's to the 1960's. Many have even alleged the Big Three firms contributed towards the development of suburban areas,

which are seen as greatly fuel-inefficient in the sense that it requires the common commuter to drive into the city from the distant suburbs. In the early 1920's when General Motors faced an extremely saturated car market, it engaged into a controversial policy alongside the road-builders which triggered a great shift from a system of mass transportation to the personal car. "Big firms tend to have lobbyists to pursue the government in their aid."⁵⁰

In December 2008, Fitch Ratings downgraded the Issuer Default Rating for General Motors; Chrysler was also downgraded to C, which indicated that its default was imminent. An article in the same month from Bloomberg reported that Ford and General Motors had their overall debt cut much below the investment status by Moody's and Standard & Poor's investor services.

The debt of General Motors was considered to be extremely insecure and was downgraded by one level to C; it was eleven grades below the proper investment quality which is set by Standard & Poor's. Moody's downgraded its rating of Ford to Caa because of twenty-six billion dollars of Ford debt, nine below the proper investment quality.

The Big Three firms spent some fifty million dollars on lobbying Congress in 2008's first nine months alone. Over his thirty years in Congress, Senator Carl Levin received almost half a million dollars. House member John Dingell received almost one million dollars over his fifty-four years in Congress. House member Joe Knollenberg received about nine hundred thousand dollars over sixteen years in office. Dingell's wife Debbie worked as a leading lobbyist for General Motors; she also became a senior

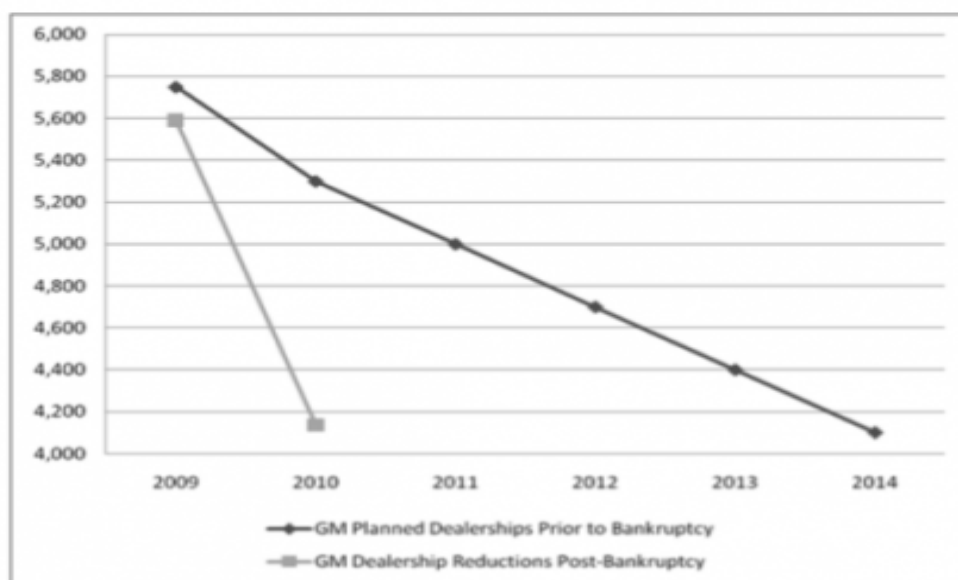
50 Monti-Belkaoui, Janice and Ahmed Belkaoui. Accounting in the Dual Economy. New York: Quorum Books, 1991. 2.

executive at General Motors with an undisclosed salary. Until May 2008, stock owned by the Dingells in General Motors was estimated at around three hundred and fifty thousand, alongside stock options of around one million and a pension fund. The value of this stock, pension and options was lost because of the bankruptcy restructuring which Congress approved for General Motors.

General Motors sent many letters to its vast number of supplier executives, dealers, union members, and employees, asking each and everyone of them to write to Congress and inform them about the many points which might show up as potential side effects of the bankruptcy which it might face. In June of 2009, a bill was introduced which argued that the government should distribute the stocks of Chrysler and General Motors to each and every individual taxpayer, however it failed to pass.

Figure 4-8 Planned GM dealership reduction pre- and post-bankruptcy

Figure 3: Planned GM Dealership Reductions Pre- and Post-Bankruptcy



Source: SIGTARP analysis of data from GM

[The above figure describes the dealership reductions made by General Motor's pre- and post-bankruptcy.]

4.1.7 Reform proposals

After much criticism, the Big Three's CEO's went to Washington D.C for the December 2 Congressional hearing on hybrid cars. This was a part of their new national strategy involving a turnaround procedure which would help them win back the confidence of the general public. Their initial plan was to commit more towards electric vehicle and fuel-saving technologies and then to present long-term viable plans assuring their dedication towards solving the crisis in front of the Congressional committee.

Ford unveiled its aggressive plan which involved the electrifying of its vehicles. This included plans to introduce a van-type vehicle which would be completely electrical. This would be complemented by a battery powered sedan launched in 2011. By 2012, Ford also intended to bring a wide variety of plug-in hybrids, regular hybrids, and battery electric vehicles into the market. These vehicles also tend to be relatively cheaper so more and more consumers can buy them.

Ford wanted to invest about fourteen billion dollars in fuel-efficient technologies during the course of the next several years and therefore aimed to achieve a target of thirty-six percent improvement in fuel related economy for its entire fleet by 2015, which it set as a target year. "Fuel efficiency in automobiles is one of the key things the consumer takes interest in while buying."⁵¹

Ford also intended to pursue many other programs through which it intended to use to develop various technologies; for these purposes it allotted five billion dollars. At the same time, Ford sought up to nine billion dollars in bridge loans.

GM was also involved in a greatly publicized effort to launch its own hybrid

51 Amin, Ash, Angus Cameron and Ray Hudson . Placing the Social Economy. London: Routledge, 2002. 32.

model plug-in vehicles, unveiling its production version of the Chevy Volt. This vehicle has the capability to travel up to forty miles in its electric mode. GM also intended to employ the drive train of the Volt in its other vehicles. GM laid out many different plans for launching a fleet of predominately fuel-efficient cars as well as crossovers over the next three to four years. This would involve investing some three billion dollars in technologies related to fuel-efficiency as well as alternative fuels. “Strategies should be planned by keeping in mind the current trends in the environment.”⁵²

It planned to offer fifteen varieties of hybrid vehicles by the year 2012, when about half of its entire fleet would be composed of flex-fuel vehicles able to run on ethanol-rich E85 or gasoline.

GM sought twelve billion dollars in terms of bridge loans throughout 2009. It also asked for a credit of six billion dollars, which it could draw on in case the forecasted sales fell short. It ended the third quarter of 2008 with reserves of cash of about sixteen billion dollars, and according to its estimates in July 2008 it needed a minimum of eleven to fourteen billion dollars on hand in order to maintain its overall operations. Without any federal loans, the firm expected its reserves to fall to the level of ten billion dollars by the end of year and to three and a half billion dollars by February of the next year.

Chrysler predicted that for its 2009 model year, some seventy-three percent of its total vehicles would be better in terms of fuel efficiency as compared to their 2008 models. The company also intended to launch many new smaller and fuel-efficient cars in the future. Its plan also included the introduction of a hybrid Dodge Ram by 2010 alongside its first ever electric-drive vehicle. Chrysler also had further plans of launching

52 Kalyuzhnova, Yelena and Michael Taylor . Transitional Economies: Banking, Finance, Institutions. New York: Palgrave, 2001. 66-67.

an additional three electric-drive vehicles by the year 2013.

Just like General Motors, Chrysler also planned to make half of its fleet flex-fuel capable by 2012. For this the company sought a bridge loan worth seven billion dollars. It ended the first six months of 2008 with around ten billion dollars but was likely to end the year having only two and a half billion dollars remaining in cash. Here, one major concern was that it might not make it in the first quarter of 2009 without the loan.

The automakers – especially the Big Three – submitted applications regarding the retooling of loans worth twenty billion dollars. These loans were needed in order for them to pay for their various projects which would address fuel efficiency and carbon emissions. “Firms should invest towards the environment in which they operate, such as towards less carbon emission or better infrastructure of the surrounding areas if required.”⁵³

Then, in December 2008, General Motors made an announcement regarding the temporary closure of its twenty factories in United States. Soon after this announcement, Chrysler announced that it would also temporarily close thirty of its plants for a period of one month.

General Motors also had plans to consolidate its portfolio regarding its American business by concentrating on the Buick, Cadillac, GMC, and Chevrolet brands while possibly selling or phasing out the Hummer, Pontiac, and Saturn brands. In June 2009, GM announced that it had sold the Hummer brand to a Chinese firm and that the complete transaction would close in 2009’s third quarter. Yet a February 2009 article written in the Herald Tribune claimed that General Motors was about to invest one billion

53 Allen, Franklin and Douglas Gale. Understanding Financial Crises. Oxford: Oxford University Press, 2007. 10-11.

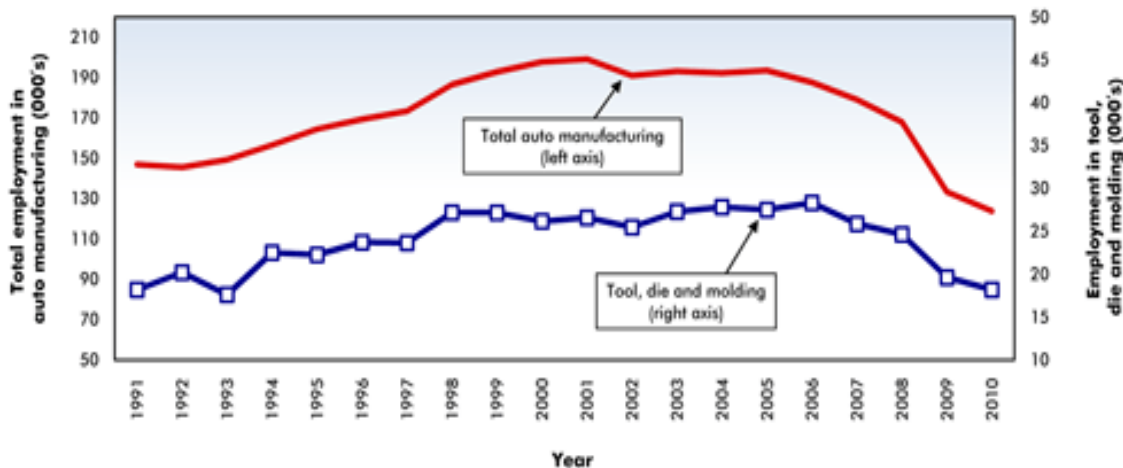
dollars in Brazil; it also claimed that the money for this investment came from the bailout funds which it had received from the American government.

Although this process of selling off brands to other firms was seen as improper practice by many observers, the fact is that the top car manufacturers had little to no choice regarding this matter. Critics argued that by this procedure the firms would not only lose a great share of their market value but would also create a negative perspective in the eyes of the common consumer which would see this as U.S. jobs being shifted overseas.

4.2 Crisis in Canada

The auto industry in Canada is closely linked to its American counterpart mainly because of the agreement known as Automotive Products Trade, which later evolved into NAFTA (Northern American Free Trade Agreement). Canada has a total of 3,500 car dealers which provide employment to a total of 140,000 people. Over 22,000 jobs were lost from 2007 to 2009. Therefore, these dealers informed the federal government in Ottawa in November of 2008 that they were at a huge risk from the global financial crisis. Therefore they asked the government to provide help despite the fact that they recorded huge number of sales that year.

Figure 4-9 Canadian Auto Employment



Data sources: Statistics Canada/Chart: Reed Construction Data – CanaData

Ottawa considered providing financial aid to the Big Three's Canadian subsidiaries as well as to the auto part companies. The auto industry scenario argued that the guarantees of loans alongside other help would go on to rescue tens of thousands of auto sector jobs in Canada, which faced a great threat from the huge drop in car sales in the United States market.

Chrysler Canada specifically asked for a billion dollars in aid, making it the only one among the Big Three's Canadian arms to ask for a specific dollar request. Many industry analysts criticized the labor contracts and the dealings which then-president of the Canadian Auto Workers (CAW) Buzz Hargrove had with the Big Three in 2007. There were predictions concerning the subprime mortgage crisis and worries that resulting currency issues would impact the Canadian auto production units very hard.

It was also noted that the president of UAW in America agreed to have "all-in" wages for UAW, this caused the pension and benefit costs to experience a significant drop from the high of \$75.86 per hour rate in 2007 to about \$51 per hour average rate in 2010.

Comparing this to the cost per hour rate of CAW, it can be seen that it was \$77 in 2007, which rose to more than \$80 per hour at the terminating period of the new contract. According to analysts, the UAW president went into negotiations with one primary objective and that was to save jobs, whereas the strategy of CAW was to get every single dime out of them. “Worker unions should always look after the profit of the firm and the entire union instead of just few individuals.”⁵⁴

The current union president in Canada, Ken Lewenza, urged at the time that the labor union not be held responsible for the bankruptcy problems faced by the Big Three automakers; he further said that his own members would never make any concessions despite that being a part of the proposed terms of a bailout funded by the taxpayers. Lewenza also added that he would not accept any more cuts after having already lost many thousands of jobs in previous few years. “Job cuts are often feared by the management since it can result in any form of backlash from the worker unions.”⁵⁵ Lewenza also said that back in 2007, CAW had agreed to make proper concessions, which would help the Big Three firms save some nine hundred million dollars over the next three years.

The Canadian Taxpayers Federation’s (CTF) spokesperson sharply criticized the “no-concession” stance of the CAW, saying that this would only strengthen the opposition towards a taxpayer-funded bailout for the Big Three automakers. CTF further noted that it was very difficult to understand why any person who asked the government for help would at the same time not want to do anything to contribute towards a solution

54 Jeffries, Ian. Eastern Europe at the Turn of the Twenty-First Century: A Guide to the Economies in Transition. London: Routledge, 2002. 51-52.

55 Auty, Richard M. and Raymond F. Mikesell. Sustainable Development in Mineral Economies. Oxford: Clarendon Press, 1998. 45.

to the crisis event. CTF also stated that the union had failed to properly realize that they had lived comfortably because of the already substantial largesse offered by the Canadian taxpayers for many decades. Columnist Kelly McParland suggested that if he didn't provide anything then his members – including himself – were more likely to lose everything. Kelly also stated that the main problem facing the United States auto industry should be borne equally by labor and management alike. He went on to criticize labor for building up completely unsustainable benefits and pay for themselves at the same time attacking management for their short-term strategy and sales tactics.

The proposed bailout of \$3.5 Canadian billion for the Big Three's Canadian subsidiaries was opposed by the CTF, which suggested that it would result in a great financial burden for the average Canadian taxpayer, and also would help provide an excuse for the American automakers to postpone making any large changes no matter how desired those changes might be outside the auto industry.

CTF noted that the provincial and federal governments spent about seven hundred and eighty-two million dollars on the Big Three in the previous five years, comparing that kind of spending to the cash having been thrown into a bottomless pit that kept on requesting more and more money. Lewenza disagreed with this by saying that Canadians should see the bailout as a loan, which would be paid back after the economic crisis was over when the nation's economy was back on a prosperous track.

In December 2008, the province of Ontario as well as the government of Canada offered more than three billion dollars in loans to the automotive industry. According to this plan, General Motors would receive three billion and the rest would be allotted to Chrysler. (Ford was not participating in the bailout process and it only requested a line of

credit.)

A cost-cutting deal with GM Canada was negotiated by CAW in March 2009 wherein its current contract was extended by one more year until September 2012. The deal also allowed for the preservation of the base pay of the average assembly worker at almost thirty-four dollars an hour. It required eliminating the seventeen hundred dollars in special bonuses given annually and reduced the overall paid absences to one week for a year.

The vacation entitlements would be kept as they were, ranging up to six weeks a year for any high seniority worker. Senior autoworkers from CAW were allowed to keep ten weeks of their vacation alongside full pay. This was combined with not having to provide any contribution to their own pension fund and relying on the taxpayers in order to help making up for their unfunded liabilities . This deal also introduced payments by the members towards a health benefits plan which included fifteen dollars per month for pensioners and thirty dollars a month for the family of current workers. Lewenza claimed that this would also trim by thirty five percent of the firm's contributions towards the programs provided by unions like wellness and child care programs. The agreement was deemed contingent on the Canadian government as it involved allocating some twenty percent from General Motors of United States as well as getting many billions of U.S dollars in provincial and federal taxpayer support, primarily in the form of loans.

Lewenza claimed that the package as a whole was a major sacrifice, however independent observers assessed it somewhat differently. From their perspective the deal did not go far enough, and an analyst from Dominion Bond Rating Service (DBRS) defined it as “not material.” Another prominent automotive firm consultant claimed that

General Motors had lost a great opportunity to cut labor costs. He noted that since bankruptcy was an ongoing threat Queen's Park (the Ontario Legislature) and Ottawa should have demanded cuts in the labor bill as a condition for the bailout, and that a deficit towards the pension fund would prevent CAW from striking. There were also estimates that the average hourly cost of any General Motors Canada worker was seventy five to eighty dollars including the benefits, such that General Motors got away with seven or six when it could have cut wages by twenty dollars. "Cuts in wages by the firm should be properly consulted with the workers union before being applied."⁵⁶

Further opinions stated that giving up the increases in cost-of-living were not prominent sacrifices as inflation was considered to be nearly non-existent, so that a forty hour decrease in paid time just translated into "five fewer spa days." A professor from the University of Toronto calculated that this process would save some one hundred and fifty million dollars on an annual basis, even as General Motors was seeking six billion dollars from the government of Canada in support.

In addition, many critics argued that this process would not be a final process in itself regarding requests from the automakers for a bailout. It was also estimated that General Motors would go through the loans provided by the government in the next few quarters, long before any recovery was expected in the market. Even the president of General Motors Canada admitted that the company had already pledged its entire assets to the United States government, in order to help secure the first tranche of some thirty billion US dollars in loans, thereby leaving no other assets to collateralize the six billion dollar loan from the government of Canada.

The Federation of Canadian Taxpayers noted that somewhere between 1982 and

56 Timothy, Yeager J.

2005, about eighteen billion dollars was handed out by Ottawa to different companies, with only seven billion dollars ultimately repayable and only about one and a half billion dollars ever repaid. “Taxpayers should have the knowledge about where their money is being spent.”⁵⁷

The president of Chrysler, Thomas LaSorda, and the chief manufacturer of Ford, Joe Hinrichs, noted that the deal between General Motors and CAW was insufficient; they suggested that they preferred breaking the negotiating pattern of CAW, which was set by General Motors. Chrysler’s president told the Finance Committee of the Canadian House of Commons that he would recommend a twenty-dollar hourly wage cut, suggesting that his firm might even withdraw from the Canadian market if it failed to achieve more viable cost savings from CAW.

The CEO of Fiat, Sergio Marchionne, had asked that the wages of CAW workers should be reduced to the non-unionized workers’ levels of Toyota and Honda, which were operating in Canada, or else they would prefer walking away from a proposed alliance alongside Chrysler. This would result in Chrysler being forced into bankruptcy. “Mergers in corporations often tend to bring a better product.”⁵⁸

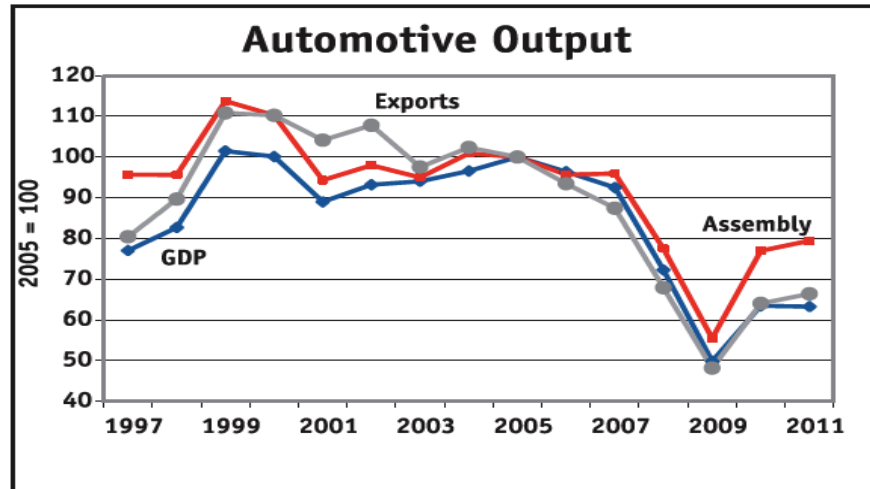
In March of 2009, both the provincial Ontario and federal Canadian governments jointly rejected the restructuring plans submitted by Chrysler and General Motors. This occurred after the day when American President Obama also rejected the plans offered by their parent firms. The Ontario Premier as well as the federal Industry Minister in Canada suggested that the initial deal by CAW was insufficient for cutting costs, therefore the

57 Mihm, Stephen . A Nation of Counterfeiters: Capitalists, Con Men, and the Making of the United States. Cambridge: Harvard University Press, 2007. 50-52.

58 Albritton , Robert. Phases of Capitalist Development: Booms, Crises, and Globalizations. New York: Palgrave, 2001. 8.

union had no choice but to return to negotiations in order to make further concessions just to show that the taxpayers' money would be used in a justifiable manner.

Figure 4-10 Canadian Automobileautomotive Output



Source: statistics Canada

5. Crisis in the European Markets

The automotive industry is the “engine” of the European economy: about one in ten jobs in Europe depend directly or indirectly on the automotive sector. The industry is the largest investor in innovation and R&D and a formidable export force. The European automotive industry generates a turnover of 551 billion Euro, which represents around 6.5% of Europe’s gross domestic product (GDP). The industry directly and indirectly provides jobs to over 12 million families. The multiplier effect of the 2.2 million direct employees at vehicle manufacturers and their suppliers is enormous. One job at the vehicle manufacturer creates four more at suppliers and another five in related sectors and retail.

The economic recession and financial crisis have had a devastating effect on the automotive industry with serious implications for the wider economy. For more than a decade, sales in the EU have stayed within a relatively narrow trading range (16.7m to 17.7m units). Since the summer of 2008, sales decisively dropped through the floor of this range and crashed further in the final quarter of the year.

By 2009, vehicle sales were running 3.5 million units lower than the trend rate. This shock, combined with a synchronized crash in key automotive export markets, brought to reality a beyond worse case scenario, exceeding the pre-crisis planning of even the most cautious manufacturers. The crash in domestic vehicle sales and in key export markets was so sharp and so deep that every single manufacturer saw significant cash burn, estimated at between 18 billion euro and 30 billion euro.

Although the slump in the European market began even before the start of this

crisis, the events of 2008 exaggerated the losses which were felt heavily even by those sectors related to manufacturing.

Figure 5-1 Passenger car production in Europe 1990 – 2010

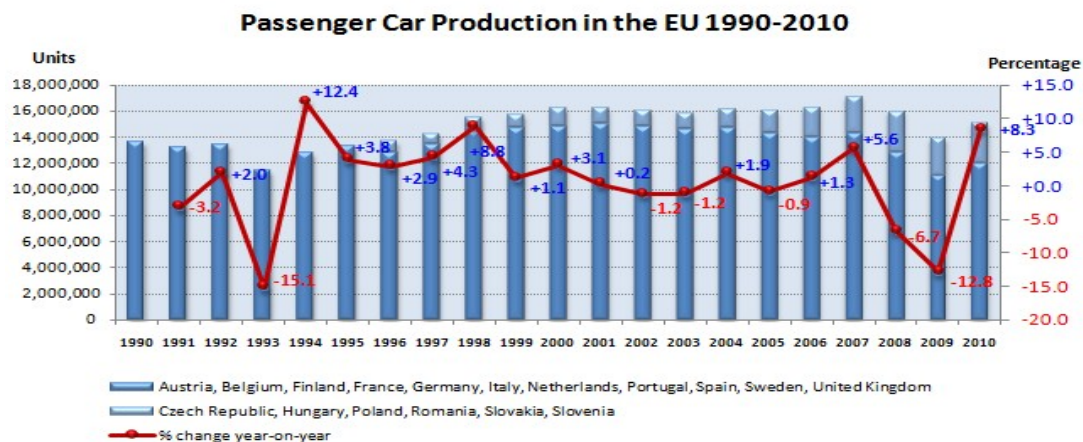
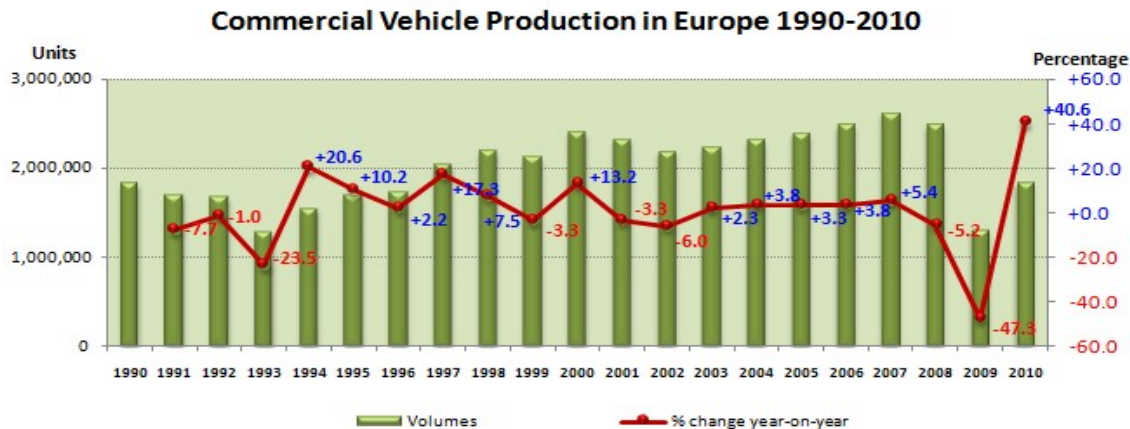
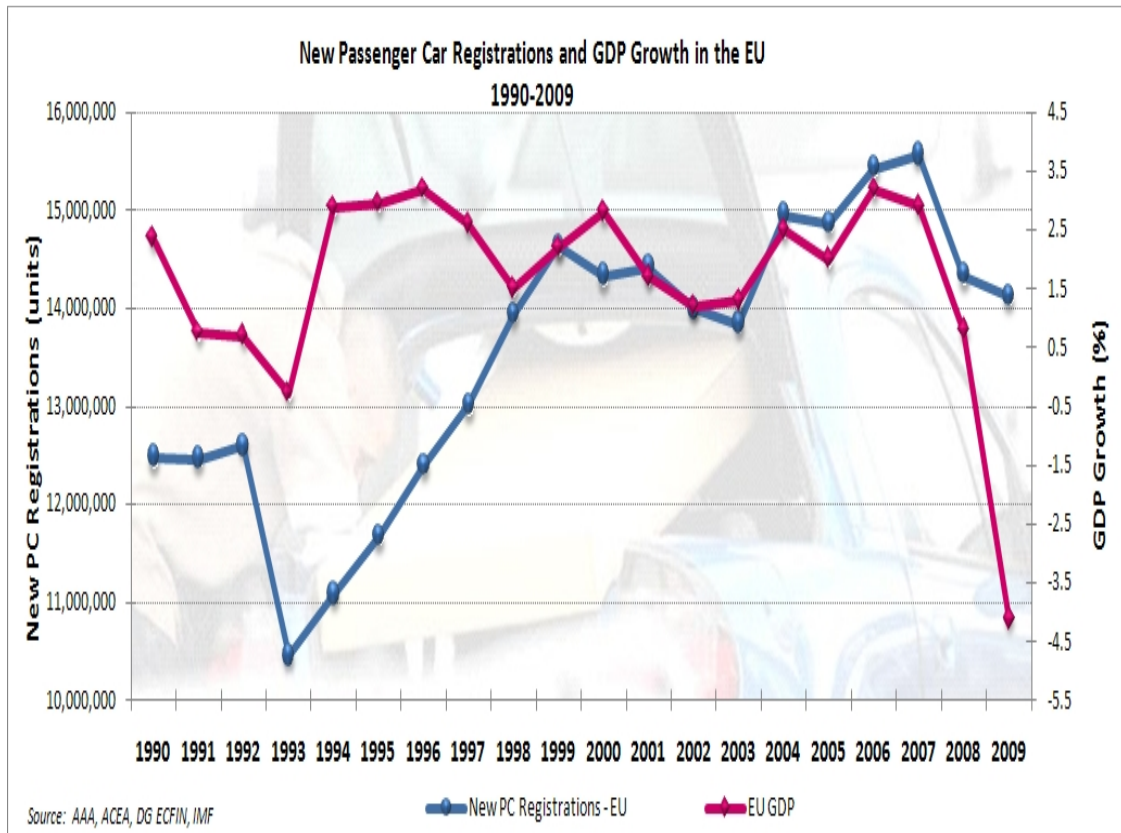


Figure 5-2 Commercial Vehicle Production in Europe 1990-2010



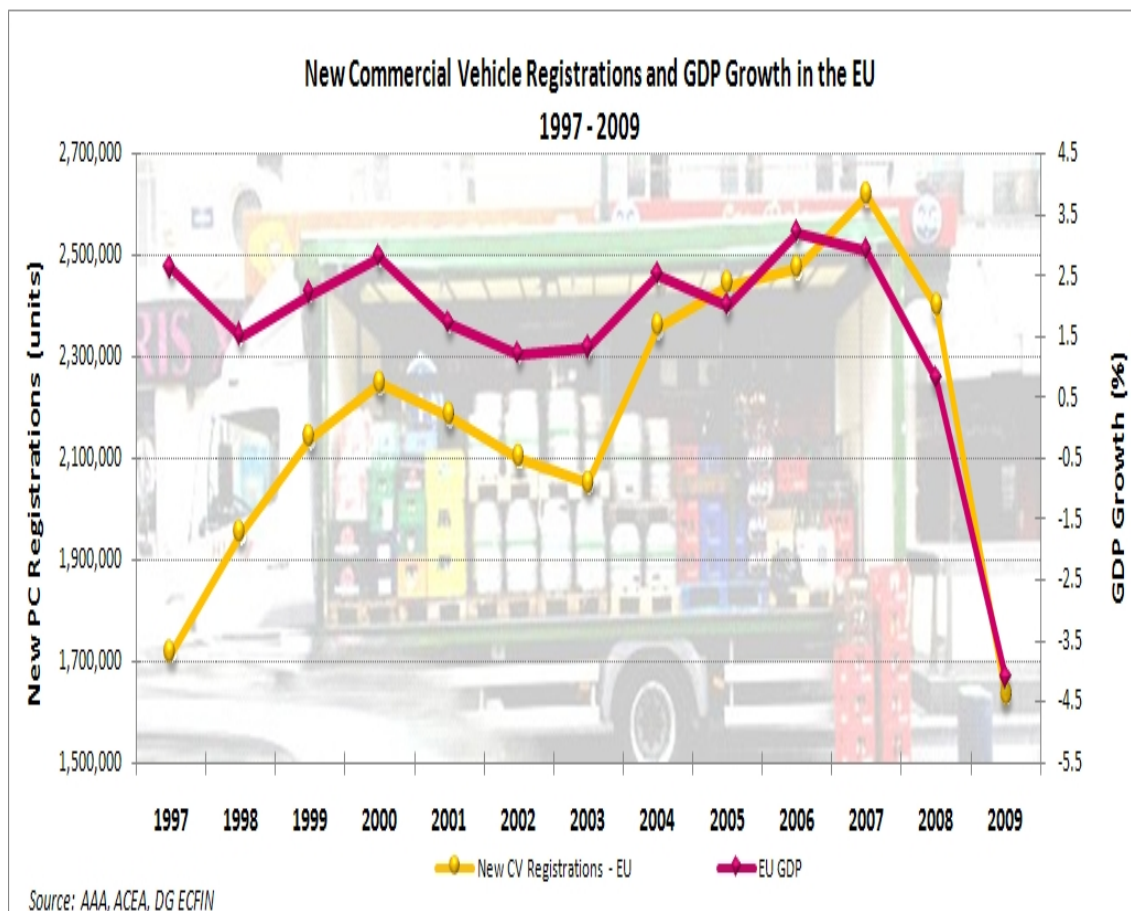
Source: ACEA

Figure 5-3 New passenger car registration and GDP growth in the EU 1990 - 2009



[The above figure shows a sharp decline in the new passenger car registrations as part of the GDP growth in the European Union, and e how these two trends are closely interlinked with each other.]

Figure 5-4 New commercial vehicle registration and GDP growth in the EU 1997 - 2009



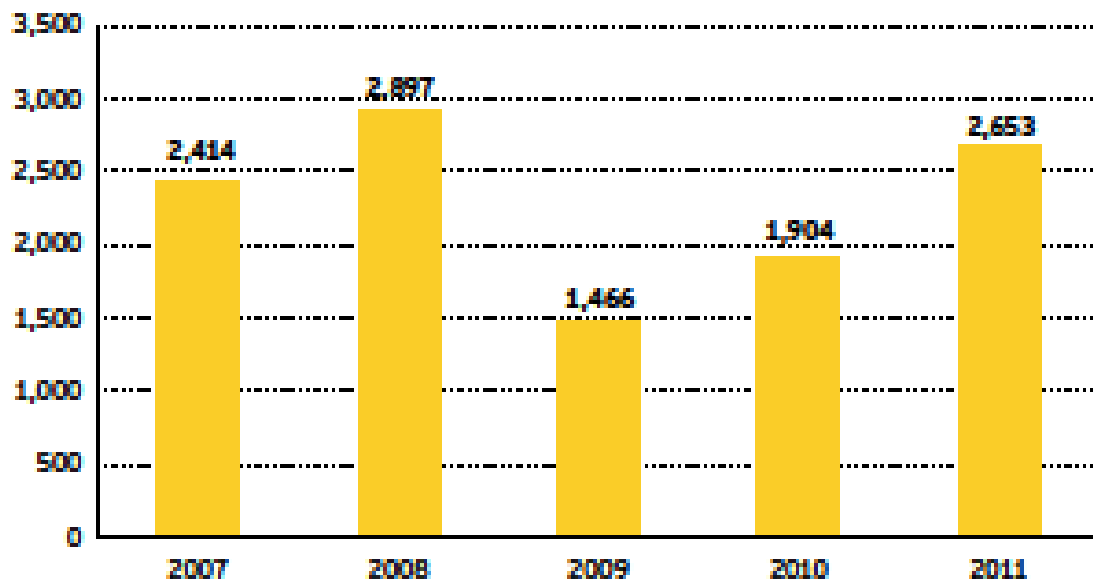
[The above figure shows the relationship between the sharp declines in both the European Union Gross Domestic Figures and registrations for new commercial vehicles in the European Union.]

5.1 Crisis in Russia

The automotive industry in Russia was impacted greatly by the global financial crisis especially with regards to the automobile crisis which followed afterwards. This impact was most severely felt in the production of passenger cars which saw a significant drop from about 1.5 million units in 2008 to only six hundred thousand units in 2009. The production of Lorry fell to ninety-one thousand from about quarter of a million during the same period.

Figure 5-5 New Light Vehicle Sales in Russian, Thousand of Units

New light vehicle sales in Russia, thousands of units



Sources: Association of European Business (AEB); ASM Holding; AUTOSTAT research agency.

The federal government in Russia introduced some protection measures worth five billion dollars to improve the overall situation in the auto industry. These funds included about two billion dollars worth of bailout money for the most troubled firms as well as three billion dollars worth of credit for the buyers of Russian automobiles. Prime Minister Putin noted that this move was essential for saving Russian jobs.

Tariffs were increased on foreign trucks and cars by a minimum of a hundred percent and fifty percent, respectively. These tariffs were associated with the size of the engine in the vehicles. The increment in duties led to many protests in Russia, especially in the city of Vladivostok where the import of Japanese vehicles was a key sector of the overall economy of the city.

To compensate for these losses suffered by the businesses in Vladivostok, the Prime Minister ordered the auto-manufacturing company Sollers to shift one of its plants to the city from Moscow. This process was finished in 2009 and the new plant now provides employment to about seven hundred locals. Furthermore, it was planned that this plant would produce more than thirteen thousand vehicles in the city of Vladivostok by the year 2010.

Due to the efforts of the government during the crisis, automotive production returned to its pre-crisis levels at the end of 2010. Also, some ninety percent of the entire vehicle models being sold in Russia were produced domestically by 2010; the manufacturer which topped the list in production was Avtovaz. According to statistics, the first seven months of 2010 saw increment in the sale of Lada cars by sixty percent, and KIA also reported an increase of more than hundred percent in sales while Chevrolet also posted a rise of fifteen percent in its sales.

By 2010, Russia was regarded as the fifteenth largest car producer in the world, ahead of Poland and Italy. The entire automotive industry in Russia accounts for some seven percent of the global car production. For example, manufacturers of E-mobile, regarded as giants in Russian car manufacturing, announced that they would be selling the vehicle in three distinctive body types, a hatchback, delivery truck and a sedan.

The firm also announced that most of its vehicle's components would be produced in either former Soviet countries or in Russia. The serial production was due to start in 2012 with the intention of selling about ten thousand units during its first year in production. The price would range between ten thousand to fifteen thousand dollars to keep it affordable for the middle class in Russia.

Furthermore, the firm producing E-mobile also intended to sell its product beyond the borders of Russia. One of the biggest hurdles in front of it is the need to come to terms with the European Union's regulation policies.

5.1.1 Industry overview

The automotive industry in Russia can be divided into four broad categories, which are foreign OEMs, local brand producers, local firms producing foreign brands, and joint ventures. In 2008, there were about fifty-five hundred firms manufacturing vehicles and their related equipment in Russia, this amounted to a total of 1.5 billion Rubles in sales production.⁵⁹

The most popular cars in Russia are commonly the homegrown brands such as the models of AvtoVAZ. When looking at the total units sold in the year 2009, the Lada Priora topped the chart with more than eighty thousand units sold. Second was the Lada Samara with about seventy-eight thousand units sold. Third was the Lada 2105/2107 with about fifty-seven thousand units sold. The Lada 2105 was thought to see more increase in its sales due to the car scrappage scheme launched in March 2010, where consumers were encouraged to trade in their old, poorly-performing vehicles. The fourth best selling car in 2009 in Russia was the Lada Kalina, which sold about fifty-two thousand units.

59 Federal Statistics Agency. Basic Indicators of Organisations by Kind of Economic Activity. 2010. 11 August 2012 <http://www.gks.ru/bgd/regl/b10_12/IssWWW.exe/Stg/d02/14-23.htm>.

In recent times, the commercial vehicle sector has seen a surge in popularity in the GAZelle van, which is manufactured by GAZ. This has occupied a total share of about fifty percent of the market in 2009 by selling more than forty-two thousand units. Many leading analysts, critics, and journals declared GAZelle to be the most successful automobile in Russia in 2009.

There have been several new projects being launched by the Russian automobile industry in recent years, some of them very ambitious. The Marussia brand, which is manufactured by Marussia Motors, recently became the first supercar as well as the first modern sports car produced in Russia.

The Marussia B1 was introduced in December 2008 at Moscow's New Manezh Hall. In September 2010, the first Marussia Motors showroom was opened in Moscow; Nikolay Fomenko, a well-known actor, racer and singer in Russia, heads Marussia. In 2010, the firm gained a significant amount of stake in Formula One's Virgin Racing team; this led to the team renaming itself to Marussia Virgin Racing. This also made it the first Russian Formula One team.

Russian automobile manufacturers also have other ambitious projects such as the Yo-mobile which is a vehicle that can burn natural gas as well as gasoline. This vehicle was introduced in Moscow in December 2010 and was a joint venture between the Onexim investment group and Yarovit, which is a St. Petersburg based manufacturer of trucks. The project was lead by Mikhail Prokhorov who also was a key financier of this entire project. He planned to invest about two hundred million dollars in this venture. His main aim was to counter a common stereotype that good cars cannot be produced in Russia.

5.1.2 Key actors

The largest automobile firm in Russia is Avtovaz. It is located in Tolyatti; it has a current employee workforce of about one hundred and thirty thousand personnel. It is famous for its Lada models, which dominate sales in the Russian market. Some fifty percent of the total car production in Russia is accounted for by Avtovaz.

The second biggest car manufacturer in Russia is Avtotor, which is located at Kaliningrad Oblast. This firm performs many different operations on foreign models such as CKD, SKS or full-cycle assembly.

This includes performing operations on Kia, BMW, Chevrolet, and Cadillac vehicles. In 2009, a total of sixty thousand cars were produced by Avtotor, which accounted for ten percent of the entire Russian car production.

The third largest car manufacturer is Avtoframos, which produced about fifty thousand cars in 2009. Its manufacturing plant is located in southeast Moscow. It is a joint venture involving Moscow city administration and France's Renault, with Renault holding the majority stake. This firm manufactures the Renault Sandero and Renault Logan brands. Its ratio regarding Russian-made equipment is fifty-four percent, and this is expected to increase to seventy-four percent by 2012. The fourth largest carmaker in Russia is Volkswagen and the fifth is Ford. Summing up the total share of the five biggest auto manufacturers, they account for eighty percent of the entire cars which are made in Russia.

Focusing on the heavy vehicle sector, the biggest firm is the KaMAZ truck maker. It is also regarded as one of the biggest firms in the entire Russian automotive industry. KaMAZ sold about thirty-three thousand vehicles in 2010, of which some twenty-eight

thousand were sold in Russia and the rest to foreign countries.

Another huge firm in the heavy vehicle sector is GAZ; it makes busses, trucks, and vans among other items. Its most renowned product is the GAZelle van; this has a total share of forty-nine percent of the light commercial vehicle market. This firm launched a better version in the year 2009 named GAZelle Business. GAZ occupied a total market share of seventy-seven percent in the bus sector; it sold slightly more than six thousand small class busses, eighteen hundred medium class and eleven hundred and fifty-six large class.

Concern Tractor Plants is Russia's biggest tractor maker and also one of the biggest machine-building firms in the world. It is located at Cheboksary. This firm employs about forty-five thousand personnel.

5.1.3 Social impact of potential bankruptcy

The automotive industry in Russia is a very important sector of the economy; it employs six hundred thousand personnel as well as supporting two to three million individuals in related industries. Politically, it has a huge significance on the nation's economy. This is due to many factors, firstly because it employs such a huge number of individuals and secondly because many people in Russia are dependent on social services which are given by the automotive firms.

Example here includes the AvotVAZ factory located in Tolyatti which is very important to the entire city. Tolyatti is regarded as a "monotown," a city that is entirely dependent on a single firm for its economy. The AvotVAZ factory provides employment to around a hundred thousand people in a city where the entire population is around seven hundred thousand.

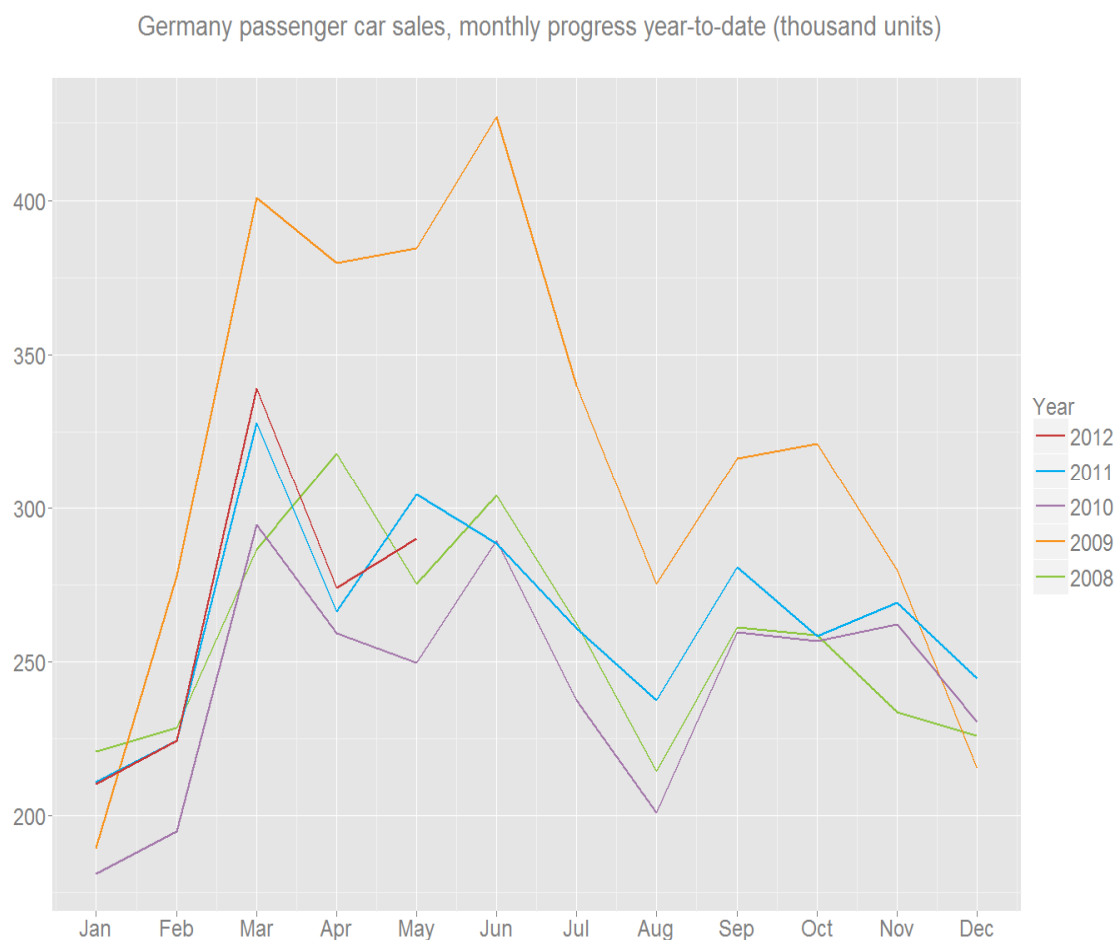
President Dmitry Medvedev inaugurated a program known as the Medvedev modernization in 2009. This was aimed at diversifying Russia's raw materials throughout its energy-dominated economy, with the main purpose to turn the economy towards modern high-technology based on innovation. After this, the automotive industry in Russia came under a great spotlight because of its enormous potential for modernization.

Prime Minister Putin has taken a personal interest in the automotive industry. He has also made many attempts to give great publicity to the local car manufacturers, such as participating in the road trip at new Amur Highway during August 2010.

5.2 Crisis in Germany

The automotive industry in Germany was strongly knocked about by the financial and economic crisis. After October 2008, production levels declined rapidly. Compared with 2009, passenger cars declined 31% and commercial vehicles decreased 59%.

Figure 5-6 German passenger car sales, monthly progress year-to-date (thousand units)



Source: Selective Rationality

The automotive industry in Germany emerged very quickly from the 2008 crisis mainly due to the rapid rise of exports. The U.S. and China were the main drivers of those exports. The automotive industry was seen to increase its domestic production as well as its exports by the end of 2010. “Increasing exports should be one of the main priorities of the government.”⁶⁰

60 Short, John Rennie. Global Metropolitan: Globalizing Cities in a Capitalist World. New York:

Many critics, analysts and observers compared the auto crisis as well as the entire financial crisis as the worst problem Germany had faced since World War II. Many of the automobile giants predicted sharp cuts in their production of vehicles, for example the CEO of Daimler predicted that its firm would produce 150,000 fewer cars in 2009. BMW reported having to cut some 8,000 jobs only a few months after the start of the crisis. Many firms were also fighting for their survival such as Opel, a subsidiary of General Motors. The German wings of Chrysler and Ford also faced similar situations mainly because of severe mismanagement at the top level.

Take Daimler as an example. In the period from January to March 2009, Daimler reported losses of 1.4 billion Euros. Daimler's responses to the losses included reducing production at several of its plants, reducing work time and cutting 8.75% of salaries for 60,000 employees, with no bonuses in 2008 for 141,000 employees. To dampen its financial problems, Daimler inquired about 2 billion Euros from Abu Dhabi strategic investment fund to exchange for 9% of its share.

Although the problems were enormous, the German auto industry came out of them. The main reason for this was foreign demand for its vehicles, as the industry places massive dependence on exports. By 2010, it had succeeded in increasing the exports of its automobiles by a fifth as compared to previous best-recorded figures, to more than 4.5 million. "Exports are essential for the revival of industries."⁶¹ Domestically, in 2009 the German Government introduced a scrappage program, which like the Russian program, offered consumers 2,500 euros (\$3,400) to surrender their old clunkers. It turned out very effective and helped spur more than 1.3 million new car sales.

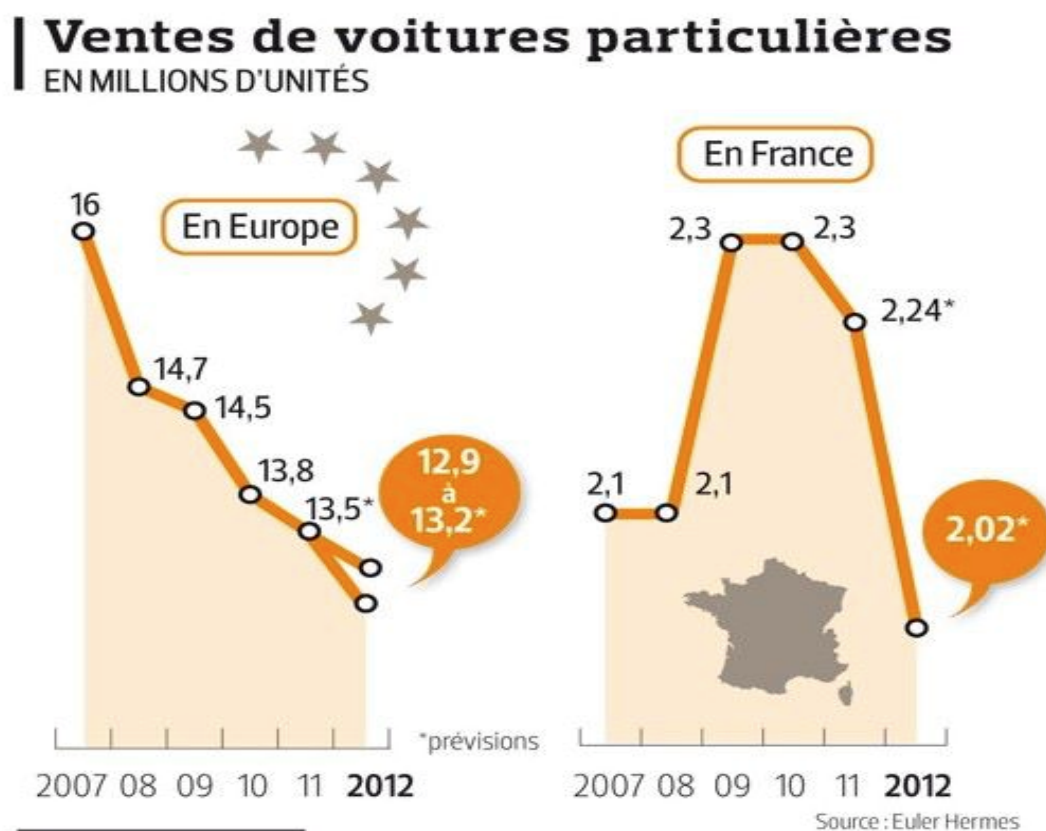
Routledge, 2004. 54-55.

61 Pinches, Michael. Culture and Privilege in Capitalist Asia. London: Routledge, 1999. 7.

5.3 Crisis in France

The economic crisis in France put those firms which were already in difficulty into an even more desperate situation. Even those companies previously considered to be in a relatively good position found themselves in very fragile shape in 2008. Sales of new vehicles stagnated at 2 million. The new car purchasing power of households declined significantly.

Figure 5-7 French auto production compared to EU



[Here is a very interesting chart written in French, which shows the comparison of French auto production with EU production in total in recent years.]

In November 2008, the French manufacturer PSA Peugeot Citroen cited that its total sales might fall by some 10% in 2009; this was following a 17% drop in its last quarter sales in 2008. Because of this it planned to cut jobs in various sectors by about

2,500. In February of 2009, PSA made a new announcement that now it would cut 11,000 jobs throughout the world, however it cited that France would be excepted from these cuts.

During the 2008 financial year, Renault announced a total profit of about 600 million Euros; this was a significant drop of about 80% from the previous year. Renault's sales throughout the world fell by 7% except in Europe, and in the European market it fell by 4%; this caused it to abandon its previous growth targets for 2009. Although the situation was grim in the markets, still Renault was one of the few European car manufacturers to have returned to profit levels soon after the crisis.

The shrinking car market in France is not a new phenomenon. The reduction of demand had already begun before the crisis. The current crisis did help to reveal how unsustainable the industry was. At the end of 2008, the French government took some immediate measures to combat the crisis. The government spent 6 billion Euros, divided between both PSA and Renault, to support them in "green" car production. The government also created a fund to modernize auto suppliers since they were equally weakened by the crisis. The manufacturers' financial corporations also benefited from subsidies from the state, allowing them to continue to finance their clients. The state also created its own strategic investment fund to invest in firms which were threatened by bankruptcy or acquisition. Also, a scrappage scheme offered 1,000 Euros for vehicles over ten years of age that were traded in for a new "clean" car. All these measures helped French automotive manufacturers weather the crisis relatively well.

The 2008 economic crisis revealed problems in the French automobile industry but it also had some positive outcomes. One was the reversal of the trend from "over-

quality” to meet buyers’ needs. Another was improving the “social” quality of their products, to produce smaller, safer and more environmental friendly vehicles.

5.4 Crisis in Italy

In December 2008, Fiat announced that it intended to extend the length of its plant closures by a month in Italy, where the main plant for the Alfa Romeo cars was already due to be shut for about four weeks. Fiat also announced in January 2009 that it faced a nineteen percent drop in its last three month’s revenues of 2008. This issue was so important to the government that the Italian Prime Minister ordered that he would take note of this issue with the highest priority. However in February 2009, because of the actions taken by the Italian government for the stimulation of automotive sector, Fiat announced that the closure of its plants would be curtailed. It also announced that it expected a drop of about 14% in its European sales by 2009. In January 2009, the firm announced an agreement according to which it was subjected to regulatory approval in order to acquire 35% of Chrysler. This stake by Fiat in Chrysler did not involve any conventional sale of shares; rather it would be done by allowing Chrysler to properly utilize Fiat’s fuel-efficient technology.

Chrysler was also given access to the European sales outlets of Fiat, while at the same time Fiat gained access to the U.S dealerships of Chrysler where it was predicted that smaller car models like the Fiat Punto would be very successful. Fiat had faced many troubles in gaining a proper foothold at the U.S markets whereas Chrysler could never occupy a strong share in the European market.

5.5 Crisis in Spain

Spain today is the eighth largest producer of automobiles. The automotive

industry is 3.5% of its GDP. In 2008, when passenger car sales fell 28% it marked a turning point in the recent history of the Spanish automobile industry. In the second half of 2009 and the first half of 2010, there was an increase in registries and the recovery of profits, thanks to the government's direct financial support of the purchase of vehicles.

SEAT, a well-known Spanish automobile manufacturer, announced in October 2008 it was slashing production on its Martorell manufacturing plant by 5% mainly because of a significant fall in its sales. This decision affected about 700 of its employees. On other fronts, SEAT was dedicated to investing in many new technologies which could help reduce the cost of its business operations. These steps included installing solar panels at its plant near Barcelona.

The development of electric vehicles presented a major industrial, energetic, and environmental opportunity for Spain. The development of biofuel vehicles has also been a promising industrial opportunity. The auto companies have also sought the chance to enter markets like China and India. As a result of these and other measure, when compared to many of the other European economies, which suffered great losses due to the automobile crisis, the Spanish manufacturers conceded fewer losses on all fronts.⁶²

5.6 Crisis in the United Kingdom

In the United Kingdom, the Jaguar Land Rover group, which was owned by Tata Motors sought \$1.5 billion in loans from the government so that it could cope properly with the crisis. On December 2008, Tata declared that they intended to inject many tens of millions of dollars into the firm, which they had bought from Ford in early 2008. Then Prime Minister Brown stated that he intended to take a more positive role in solving the

62 Allen, Franklin and Douglas Gale.

problems faced by the car industries throughout the U.K.

Nissan announced in January 2009 that it was to cut twelve hundred jobs from its factory located in the northeast of England, namely Washington, Tyne, and Wear, because of the global automotive crisis of 2008. Despite being declared as the most productive and efficient car manufacturing plant in Europe, the firm did not hesitate to make this announcement.

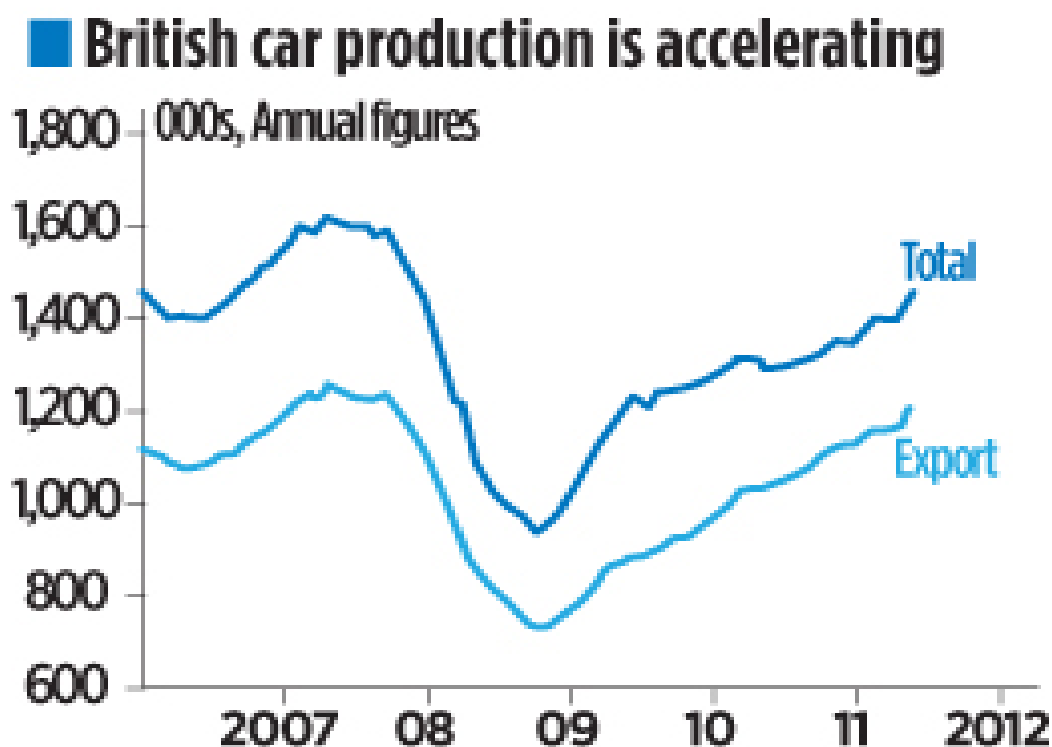
The British subsidiary of General Motors, Vauxhall Motors, widely regarded as among the top most-favored brands in the U.K, has a total of two bases in Britain. These include a factory located at Cheshire and R&D center alongside its headquarters at Luton, Bedfordshire. There is no proper data available to confirm if the cutbacks made by General Motors had any effect on these plants. This group, alongside its sister subsidiary, the Opel brand in Germany, was to be sold to Magna International in their majority. Magna is an Austro-Canadian firm which supplies car equipment to large automakers; however, this transaction was later cancelled by General Motors.

Optare, which is a British bus manufacturer, got an order in November 2008 from Arriva for the creation of more than fifty buses. This contract was estimated to be worth more than six million pounds and required the creation of five hundred jobs in the Assembly factory of the firm located at Leeds, West Yorkshire, as well as at the parts center located at North Lanarkshire. British commercial vehicle and van manufacturer LDV Group requested thirty million pounds in bridging loans from the British government in order to proceed with a management buyout; this was later on refused. LDV had stated that it possessed a bright future and wanted to become the producer of electric vans if any management buyout were to take place. LDV's production at its

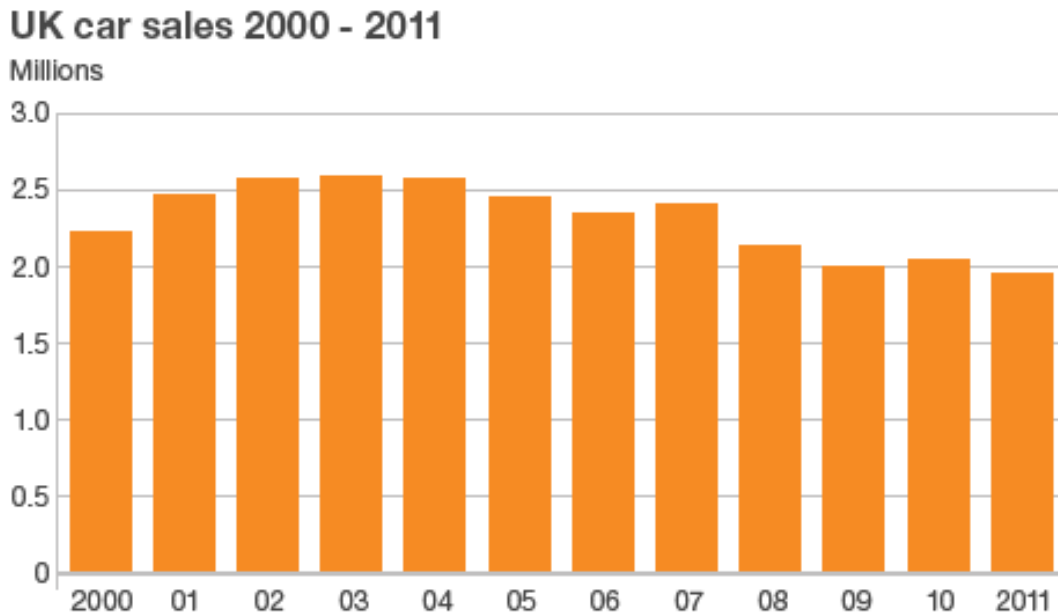
Birmingham factory was suspended after 2008 because of poor demands. Later on when no buyout materialized, LDV folded in October 2009.

Like other countries, the UK government launched a scrappage incentive scheme in order to support its auto industry. Cars registered before February 29, 2000, were eligible to be scrapped for a discount of £2000 on a new car, half of which was provided by the government and the other half by the dealer. This led to 300,000 new car purchases. In 2010, the government announced a £230 million “plug-in car” grant scheme to provide a £5,000 grant towards the purchase of plug-in electric cars. An additional “Plugged-In-Place” scheme would provide some 11,000 charging points in selected cities over the next three years.

Figure 5-8 British Car Production is Accelerating



Source: SMMT

Figure 5-9 UK Car Sales 2000-2011

Source: SMMT

5.7 Measures to cope with the crisis

The European passenger car and commercial vehicle markets were hit hard by the financial crisis and subsequent economic downturn. The credit crunch made it more difficult for the sector to finance daily operations and also weakened demand for new cars and trucks.

The current crisis is thus threefold:

Financially, it has a drastically limited access to credit, and led to high costs of credits when available for the manufacturers, their suppliers, and for potential buyers of cars and trucks.

Economically, it has led to a dramatic drop in demand for both passenger cars and commercial vehicles.

Structurally, it has lowered margins due to an increasingly complex and diverse

product portfolio and an increasingly pressing demand to adapt manufacturing, logistics, vehicle and R&D to meet environmental needs.

5.7.1 Measures taken by the EU governments and institutions

It is most essential that EU governments and institutions ensure access to liquidity, through the European Investment Bank and in other ways.

It is equally vital that governments stimulate demand for new vehicles with fleet renewal schemes; this will benefit both the economy and the environment.

Fleet renewal schemes can take the form of scrapping incentives and other forms of market stimulus, for example through fiscal measures. Governments can collect 381 billion Euros in vehicle taxes and have a powerful instrument to influence the market.

The EU should also refrain from adding any new costly vehicle regulations for a few years.

5.7.2 Measures taken by automotive manufacturers

Production: manufacturers need to adapt their output to deal with the anticipated decrease in demand of vehicles

Employment: manufacturers should adjust their employment base in an as socially responsible way possible, using the flexibility agreements at their disposal (extended vacations, taking weeks out of production, shortening working weeks, non-renewal of short-term contracts, and non-filling in of vacancies), and in close contact with unions and governments.

Cost: manufacturers should cut all discretionary costs by limiting travel and meetings, downsizing advertising, and sponsorships.

Investment and R&D: make sure manufacturers review their expenditures on new product programs and R&D.

Marketing and sales: manufacturers need to adjust their products and marketing to meet the new demands of their customers.

Support of suppliers: manufacturers need to scrutinize the situation of their key suppliers on a daily basis and provide support to the extent they can.

6. Crisis in the Asian Markets

When talking about Asian markets, the markets first need to be separated into two categories. The first category is that of an emerging market represented by China and India. The second category is a developed automobile market which represents Japan and South Korea.

6.1 Crisis in China

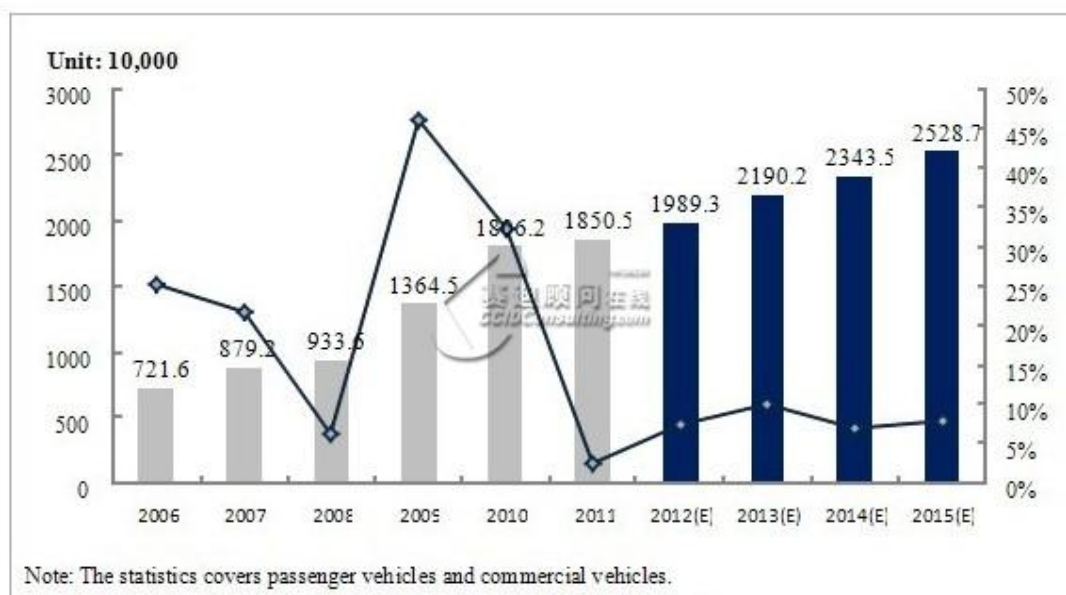
China today is one of the most important automobile markets in Asia. Since 2008, China's auto industry has become the world's largest. The automobile industry in China is comprised of 120 vehicle manufacturers employing nearly two million workers. Of the automobiles produced, 44.3% were local brands (including BYD, Lifan, Chang'an, Geely, Chery, Hafei, Jianghuai, Great Wall, and Roewe.) Most of the cars manufactured in China are sold within China since China's home market provides its automakers a solid base.

Regarding the global auto industry crisis of 2008, the Chinese auto industry was also affected. The yields of Chinese automobile were 9.3 million, an increased of 5.2% in 2008 compared with 2007, but the growth speed decreased by 16.8%. The total automobile sales volumes reached nearly 9.4 million, rising by 6.7% but the growth speed declined by 15%. There was a sharp reduction in the profits of Chinese automobile manufacturers.

In order to promote the development of Chinese automobile manufacturers during the financial crisis, the Chinese government was quick in making effective decisions regarding any assistance being provided to the local automobile firms. The government

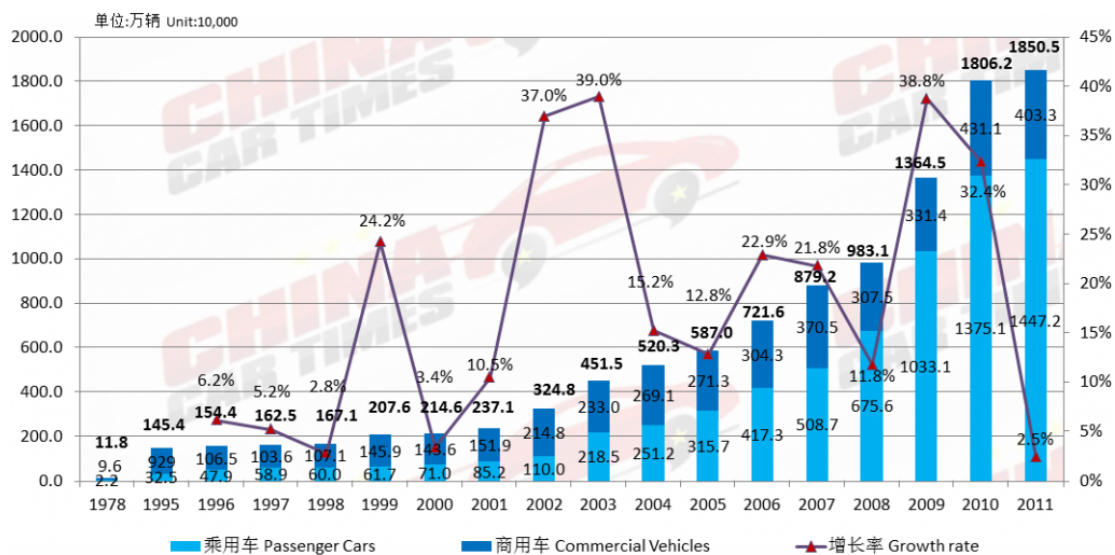
introduced a massive stimulus package intended to help out the auto industry. From a technology standpoint, this was to be done through reducing the purchase tax of passenger automobiles with low emissions, supporting Chinese automobile manufacturers in developing independent innovation and technical reform, and driving the development of electric powered automobiles and its crucial accessories. On the business end, the stimulus offered purchase subsidy policies to specific targets so as to promote automobile consumption, advanced mergers and acquisitions among the automobile industry, supported Chinese automobile manufacturers to develop independent brands, and sped up the export base construction of automobile and accessories.

Figure 6-1 China's auto sale and prediction



[The above figure shows a decline of Chinese auto sales as growth speed slows down.]

Figure 6-2 China's Car Growth Rate



Source: China car time

6.2 Crisis in India

India is the second fastest growing automobile market in the world. More than 3.7 million automotive vehicles were produced in India in 2010. The industry has a turnover of more than USD \$35 billion and provides direct and indirect employment to over 13 million people.

In February 2009, after citing an upcoming fall in the production numbers, State Bank of India greatly reduced the interest rates applied to automotive loans. In the starting months of 2009, a widespread marketing campaign was conducted by Tata Motors involving the launch of the Tata Nano automobile. Described as a “people’s car,” Tata hoped that the consumers would be encouraged to buy this car at a time of severe financial crisis because of its cheap price tag, which was about twenty-one hundred dollars. “Consumers tend to go for best quality product at nominal rate.”⁶³

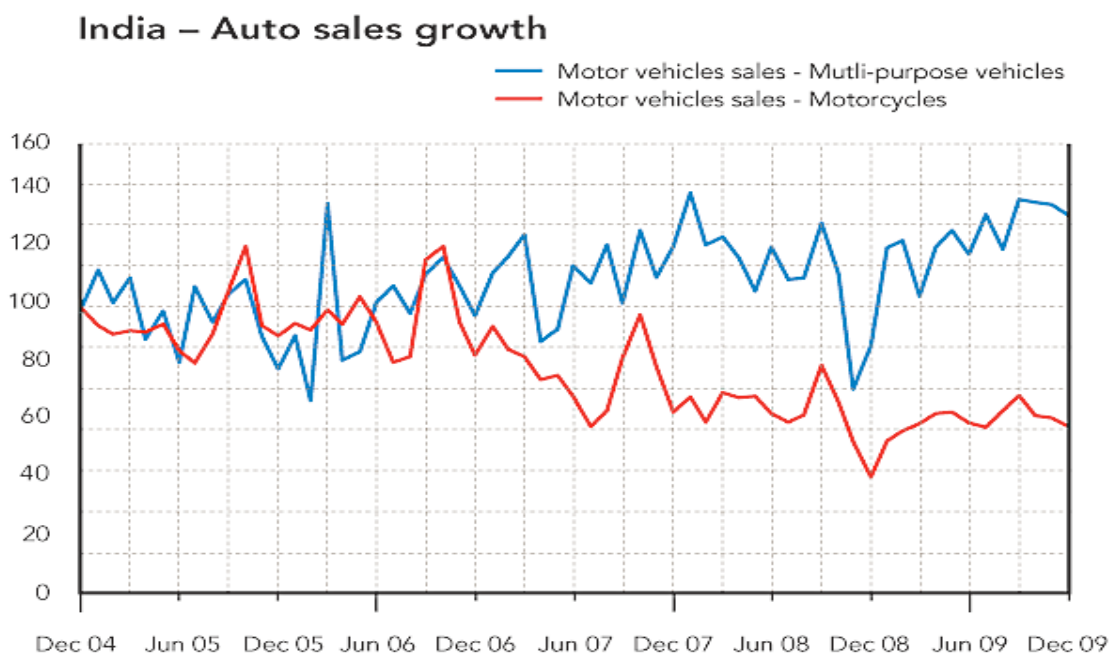
These and many attempts taken by the government to take control of the crisis or even to give advantage to the local manufacturers went on to help the local consumers as well as the manufacturers, and therefore the Indian automotive sector not only emerged from the crisis but continued going stronger on all terms such as manufacturing, attracting foreign investment, and so on. One of the main reasons for this rapid rise is the growing middle class in India, which prefers to buy cars rather than use the public transportation system.

Another key advantage that the Indian car manufacturers have is cheap labor. This tends to make India a very profitable venture to do business in for the rest of the world since it offers such a large reduction in the costs of doing business when compared to any

63 Bingham, Richard D. and Zhongcai Zhang . The Economies of Central City Neighborhoods. Boulder: Westview Press, 2001. 22.

developed Western nation. “Cheap labor is one of the main reasons why firms choose to invest in the developing world.”⁶⁴ Still, whatever the cause, the Indian automotive sector has the potential to grow even further and take a much bigger share in the global market.

Figure 6-3 India - Auto sales growth



[The above chart shows how the Indian market emerged from the auto crisis through strong sales in its multi-purpose vehicles.]

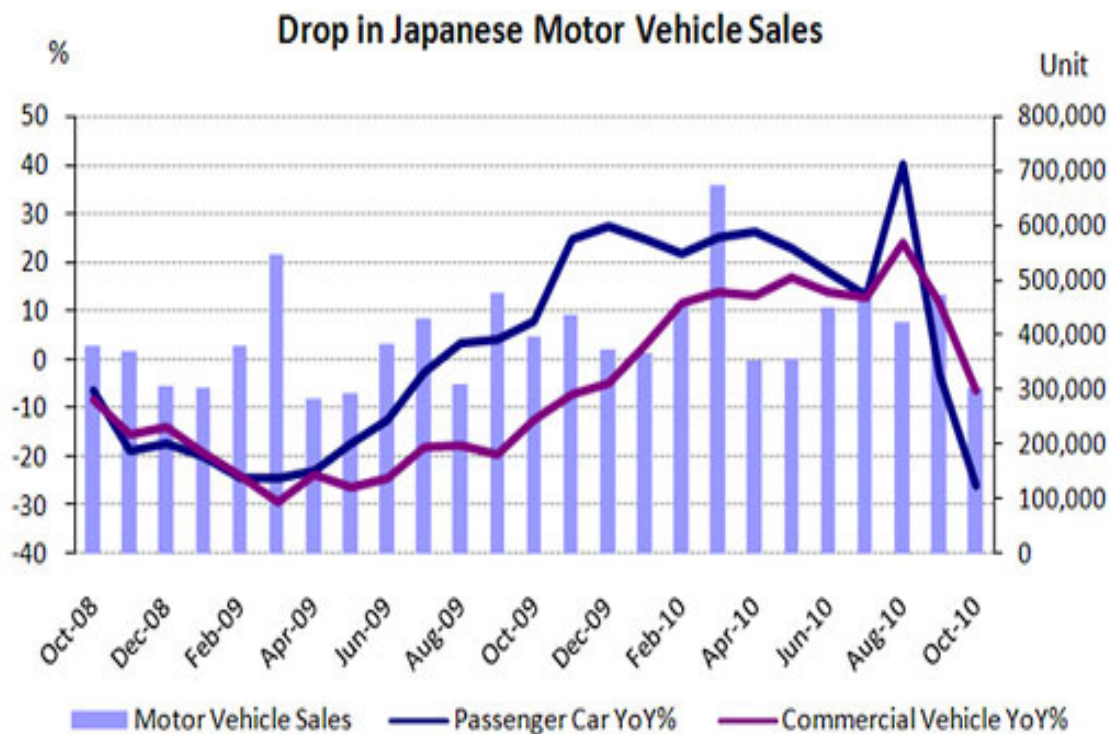
6.3 Crisis in Japan

The crisis in the U.S. automotive industry hit Japan like a tsunami. Thousands of workers lost their jobs. During the summer of 2008, a double-digit decline was reported by Toyota, its first annual loss in decades. This was similar to the figures being reported by Big Three firms in the U.S. Toyota associated this with its slow sales in Tundra

64 Hoekman, Bernard M. and Michel M. Kostecki . The Political Economy of the World Trading System: The WTO and Beyond. Oxford: Oxford University Press, 2001. 47.

pickups alongside a shortage of sales in its fuel-efficient brands like Corolla, Yaris, and Prius. The automotive industry, seen as the engine of the nation's economy, was facing a severe threat.

Figure 6-4 Drop in Japanese Motor Vehicle Sales



Source: CEIC Data

In response, Toyota announced plans to idle its truck plants as well as shift production towards other plants in order to focus more on the manufacture of in-demand vehicles. Toyota declared in December 2008 that it was expecting its first ever loss in seventy years of business in core vehicle making. This total loss was around \$1.7 billion related to the Toyota's group operating revenue. Toyota also saw its sales drop to about thirty-four percent.

December 22, 2008 was the day when Toyota slashed the forecasts of its profits due to a slump in its sales. Often regarded alongside Honda as a huge success story and

an inspiration for the entire local industries to follow, Toyota issued a statement saying that it was expecting a narrow profit of five hundred and fifty-five million dollars for the fiscal year ending in March 2009. Before this, Toyota had been projecting a huge profit of about fourteen billion dollars for that period. Sales in America as well as in the overall European markets were down by thirty-four percent for Toyota. All of this accumulated towards a loss estimated to be around two billion dollars. The President of Toyota, Katsuaki Watanabe, said that the impacts on the firm from the dire economic conditions had been much wider, deeper, and faster than previously expected. He also noted that the change which had affected the global economies was of an size and scale which only occurs about once every hundred years, adding that Toyota was looking for loans from the government in Japan while facing its first ever losses in some sixty years of its global operations. Toyota announced on November 4, 2009, that it was immediately withdrawing from Formula One, thereby completely ending its involvement in this sport after eight seasons.

Honda motor's sales also felt by 31.6 percent. The Honda motor firm announced in December 2008 that it would be immediately leaving Formula One mainly because the 2008 economic crisis necessitated selling off their team. Honda also indicated that following this action there could be large reductions in their contract staff as well as part-time employees. The bonuses of upper management were also to be reassessed: the directors of the firm were to take a ten percent cut in their pay effective from January 2009. "Leadership of any firm should be flexible enough to absorb any upcoming changes quickly."⁶⁵

65 Ward, Stephen V. Planning the Twentieth-Century City: The Advanced Capitalist World. Chichester: Wiley, 2002. 3.

Other Japanese car manufacturers reported similar problems. Nissan reported its first annual loss of \$2.7 billion and announced that it intended to cut production as well as reducing its total output by eighty thousand vehicles for the starting months of 2009.

Suzuki, the fourth biggest Japanese car manufacturer, announced in December 2008 that it would slash its Japanese production by about thirty thousand units mainly because of falling demand. Suzuki also expected to face its first significant drop in profit levels in eight years mainly due to the financial crisis. Fuji Heavy Industries, the biggest Japanese transport equipment manufacturer as well as the maker of the Subaru model of cars, announced in December 2008 that it would be exiting from the World Rally Championship by the end of its 2008 season. The main reason for this was described as a response towards a widespread economic downturn which was badly affecting the automotive industry in general and other industries related to the main automotive sector as well. This announcement came a day after Fuji's competitor Suzuki exited from the championships.

According to many reports in December 2008, Mitsubishi Motors was also set to broaden its production slashes because of the continuous fall in demand of its products. Mitsubishi, a well-known maker of Japanese Outlander sport-utility vehicles, announced it would eliminate the night shifts completely at two of its domestic factories because the severe global recession was drying out demand for their automobiles. "Job cuts in any business should be proportional to its fall in profits or rise in losses."⁶⁶

The company would also halt its Mizushima plant's night shift, excluding only the mini car line; besides this the night work at its Okazaki plant was to be halted as well

66 Roberts, Paul Craig and Laren LaFollette Araujo . The Capitalist Revolution in Latin America. New York: Oxford University Press, 1997.

starting February 2. These slashes were a part of Mitsubishi's overall strategy to reduce its output by one hundred and ten thousand vehicles for the fiscal year ending in March, mainly due to the falling sales in Japan, Europe, and the United States. "Firms often tend to lower the median pay instead of cutting jobs, depending on what suits them."⁶⁷

It was also estimated that sales in Japan would fall to their lowest levels in the last thirty years in 2009, according to the Japanese automobile manufacturers association. Mitsubishi would also halt its passenger car production on every Friday of the upcoming month at its Mizushima factory. The plant in Okazaki was to close on every Saturday for the month of January as well as for five more days.

The Japanese Government provided loans through government-affiliated financial institutions, and started tax reductions for fuel-efficient automobiles with good environmental performance. It extended loans to mid- and large-sized companies which were in trouble in regards to cash management; expanding a safety-net guarantee and lending facility for small and medium firms. The government also expanded loans and guarantees for Japanese-affiliate companies raising long-term funds overseas, and provided a certain proportion of tax exemptions on both new and used cars which were between 50% to 75%. The Japanese government also adopted a scrapping schemes and encouraged the purchase new environmental-friendly vehicles.

6.4 Crisis in South Korea

The automakers in South Korea were generally observed to be at much more profitable levels as compared to their Japanese and American counterparts, recording better than expected growth figures in many of the depressed markets like that of the

⁶⁷ Kueh, Y. Y. and Brian Bridges . The Political Economy of Sino-American Relations: A Greater China Perspective . Hong Kong: Hong Kong University Press, 1997. 44.

United States. Even despite the global economic crisis, the firm Hyundai-Kia was successful in overtaking Honda Motors in 2008 as world's fourth largest automaker. The continued success of Hyundai-Kia was very unusual at a time when almost all of the global automakers were experiencing a significant sales drop, with the leading auto manufacturer General Motors even filing for bankruptcy protection. Hyundai-Kia took great advantages from the automotive crisis by producing high quality yet affordable as well as well-designed vehicles.

Due to the factors of rapid globalization, car manufacturing plants have been set up at different locations throughout the globe such as in China, Eastern Europe, and the U.S. Manufacturing facilities have been upgraded in order to produce products which are engineered and designed for many different markets throughout the globe. Here, the example of the Kia Cee'd is a leading one in which the product has been developed, engineered, and designed in Germany and then built in Slovakia.

Unlike for many other firms throughout the world, the automotive crisis was turned into a blessing for different South Korean automakers. The automaker Hyundai made many great offers to its customers such as those who had lost their jobs could now return their newly purchased car for a refund. This success and continued growth was attributed to the nation's well equipped and fuel efficient yet affordable automobiles with great warranties like the Kia Cee'd, the Hyundai i30, and the Kia Picanto which attracted consumers globally at a time of extremely severe economic slowdown, increasing environmental concerns, and significantly rising oil prices. All of these factors gave the automakers in South Korea a great competitive advantage against many of the luxury vehicles and SUVs from the American, German, and Japanese automakers, especially in

the fourth quarter of 2008 and the first quarter of 2009, at the height of the entire automotive crisis.

South Korean monetary policy helped as well, boosting the South Korean won in global currency markets. This was especially true against the Japanese Yen and the American Dollar, which also became a significant factor in boosting the price competitiveness of exports of South Korea in many of the global key markets. “Currency rates are greatly argued on international level since it may give unfair advantage to some firms or nations.”⁶⁸

Another important factor which helped in maintaining this positive momentum was rapidly improving brand awareness; this was attributed to the positive reviews and the awards the firm received throughout this time from many different sources. The brand of Hyundai grew by 9% in 2008; this was enough to surpass Ferrari and Porsche. It also utilized the sporting event of the Super Bowl for the promotion of its Hyundai brand in America; this was the most expensive airtime for commercials in the world.

Yet even after all of these success factors, the automakers in South Korea were not completely immune to the automotive crisis. An example of this comes from the Hyundai Motor Company which in December 2008 was beginning to reduce its production at various different plants located in India, China, Turkey, Slovakia, and the United States. This was mainly because of fall in demand at various sectors of its sales throughout the globe. “Shifting the manufacturing plants elsewhere in the world often tends to bring more profits depending on factors such as cheap labor”.⁶⁹

68 Li, Kui-Wai. Capitalist Development and Economism in East Asia: The Rise of Hong Kong, Singapore, Taiwan, and South Korea. London: Routledge, 2002. 32.

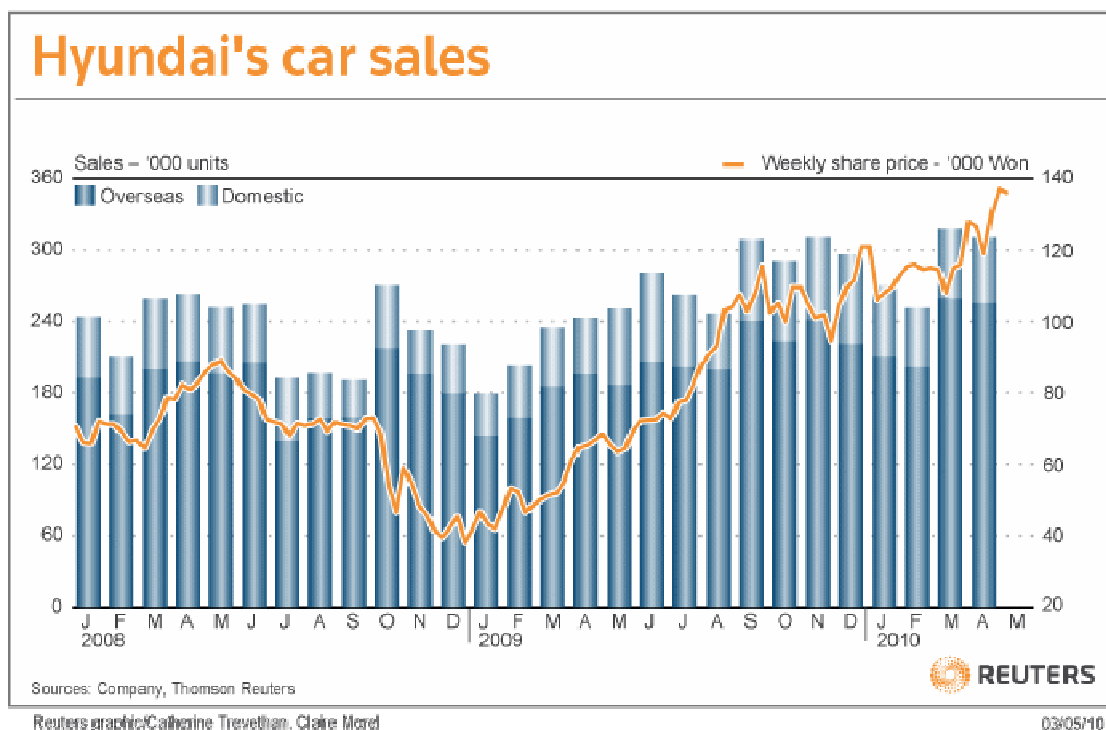
69 Forstner, Helmut and Robert Ballance. Competing in a Global Economy: An Empirical Study on Specialization.

The firm also missed its earlier projection of four million eight hundred thousand units for the year 2008, and therefore announced it was freezing the wages for workers in administration as well as shortening its factory operations because demand was weakening amid the global financial crisis.

Sang Yong Motors, the fourth largest automaker in South Korea and owned by the Chinese manufacturer Shanghai Automotive Industry Corporation (SAIC), was the worst affected South Korean firm in the entire crisis. This was largely due to its mainly manufacturing SUVs which were dependent on heavy fuel consumption and consequently less popular during the economic downturn. This firm recorded losses in four straight quarters. By 2008's end they had losses of \$20.8 million dollars for the third quarter.

In the period from July to September in 2008, total sales plummeted sixty-three percent to three thousand eight hundred and thirty-five vehicles. Its production lines were idle after December 17 to apply reductions in its inventory. The automaker also halted its production twice during the auto crisis. In December 2008, the parent firm SAIC gave the Sang Yong union an ultimatum to accept its plans regarding restructuring or face a complete withdrawal from the parent company. If this had been done then it would have translated into certain bankruptcy for Sang Yong.

Figure 6-5 Hyundai's Car Sales



Due to the global crisis, the Korean government took the temporary policy action of reducing the sales tax on vehicles by 30% for the period December 2008 to June 2009 in order to promote sales. This policy was extended until the end of 2009. Moreover, the government launched a “Green Growth New Deal” to overcome the current economic crisis, which included subsidizing the development of “green” cars and fuels. This subsidy, amounting to over 2.2 trillion won, was allocated for automakers to design electronic and hybrid cars and to develop auto engines using “green” fuels. As such, the government played a significant role in nurturing and restructuring the auto industry during the economic crisis.

7. Government Stimulus

Government support for the automotive industry has been provided in a variety of forms, including subsidies to firms and direct involvement in industry restructuring plans. However, government interference is always a controversial topic.

The US Government committed nearly \$40 billion to assist the automotive industry (half of which was in the form of direct loans to Chrysler and GM) and another \$5 billion to supplier support programs, and also set up community assistance programs to intervene in regions that were subject to difficulties as a result of the restructuring of the industry. The debate remains whether this was too much or too little support. Given the way the governments were getting involved, they were also assuming responsibility for the outcomes of their actions. The risk that therefore arises from government support is that companies will continue to build cars for a market where there is no demand for what is being produced.

In France, there was restricted room for politicians. The government had an implicit collaboration with the companies not to close any plants in exchange for public funds. Other types of long-term commitment, such as agreements on the types of cars to be produced in the future, would possibly be more useful. These actions are regarded as protectionism.

In the case of Italy, the government was highly restricted when it came to giving money to the automotive industry. The general policy was that while no plant would be shut down, only a crisis putting a company at severe risk would constitute a valid reason for government support.

The action taken by Chinese Government included a cut in sales tax on smaller cars, from 10% to 5%, a policy which was valid only in 2009. Another policy was the increased consumption tax on vehicles with larger engines. Also, China published regulations for passenger cars stating the need to achieve fuel efficiency standards. A number of national companies have since grown into strong players so the external multinationals are no longer threatening the domestic industry.

The cultural differences between the US, European, Chinese, Japanese, Indian, etc. automotive industries are a fact. However, global competitiveness applies to all, and needs to be faced and dealt with. As a result of the crisis, the trend towards further consolidation of car manufacturers will be accelerated. About 18 global car manufacturers in the three old core automotive regions – the United States, Western Europe and Japan/Korea – will be significantly reduced in number over the next five years. They will be challenged by car manufacturers based in China and India.

Many countries introduced car scrapping schemes (CARS or “cash for clunkers” in the US) to cushion the overall downturn in economic activity, boosting sales in the short term. As these programs were temporary and consisted mostly in a shift of purchases from the future to the present, the surge in sales is likely to be reversed after the schemes end. Evidence on the timing and magnitude of this “payback effect” varies but suggests that over the short term, car sales may be temporarily depressed by the termination of scrapping programs in many countries.

[Table 7-1 below shows that most of the countries’ governments would reduce or exempt the automobile requisition tax on small to medium-sized cars, and/or on eco/environmentally-friendly cars.]

Table 7-1 Principle measure to support the automobile sector

	Duration	Scrapping scheme		Effects	Other measures
		Incentives	Total amount		
Korea	May 2009 to December 2009.	Tax incentives for consumer trading in older vehicles: 70% tax reduction on individual consumption tax (national tax, 5 to 10%) and 70% tax reduction on registration tax (local tax, 5%) and acquisition tax (local tax, 2%).			
Germany	Until December 2009 but funds used by September 2009.	€ 2 500.	€ 5 billion.	New car registration increased by 30% in February.	Adjustment of the annual circulation tax for passenger cars on the basis of CO2 emissions.
Greece	30 September - 2 November.	€ 500 to 2 200 depending on the type of vehicle.			A 50% cut in the registration tax on new cars applicable between April and August 2009.
Italy	Until end 2009.	€ 800 to 1 500.			
Japan	10 April 2009 to 31 March 2010.	Subsidie of ¥ 125 000 to 250 000 for the purchase of high-energy efficiency car, if scrapping a car 13 years old or more. Subsidie of ¥ 50000 to 100000 for purchasing a high-energy efficiency car if scrapping a car of less than 13 years old.	¥ 370 billion (€ 2.78 billion).	As of 28 September 2009, about 730 000 requests were received while 18 600 cases were already subsidised. A total of ¥ 19.9 billion has been spent.	Green tax schemes for automobiles were upgraded in April 2009. The motor vehicle tonnage tax (April 2009 to April 2012) and the automobile acquisition tax (April 2009 to March 2012) were reduced or exempted for environmentally-friendly automobiles.
Spain	1 December 2008 to 31 July 2010 (Plan Vive) and 22 May 2009 to 18 May 2010 (Plan 2000E).	Plan Vive: interest free loan up to € 10 000 for a period of five years provided the new car has a value up to € 30 000. Also applicable for the purchase of old car if the scrapped car is at least 15-years old. Plan 2000E: direct support from the government: € 500 per car, conditional on the manufacturers adding another € 1 000 per car. Some Autonomous Communities could provide an additional support of € 500 per car if the scrapped car is at least ten years old or at least 12 years old when people purchase second-hand cars.	Plan Vive: € 1.2 billion. Plan 2000E: € 100 million and 200 000 cars, at maximum, to be financed. It is likely to be widened to € 140 million euros and 280 000 cars, at maximum, to be financed.	From December 2008 to February 2009, the credit was granted for 9 000 vehicles (Plan Vive). At the end of October 2009, more than 190.000 cars were scrapped (Plan 2000E).	Support of € 800 million for the sector in forms of soft loans for investment in production facilities and support for investment in RD and training. Promotional measures to support export. Pilot programme for electric cars. Financing facilities for small and medium-size companies in the automobile sector.
Sweden	Until July 2009.	Tax premium of SEK 10 000 for private persons purchasing a new eco car.			A number of tax exemptions for eco cars were abolished.

China	From 1 June 2009 to 31 May 2010.	CNY 3 000 to 6 000 (only large cars can be scrapped).	CNY 4 billion.		Cars to the countryside programme (CNY 5 billion).
India					A reduction in the excise duty on cars and utility vehicles with an engine capacity of 2 000 cc and above. A reduction in excise duty for small cars from 16 to 12 per cent and for hybrid cars from 24 to 14 per cent in the 2008 budget.
Turkey					Special consumption taxes (SCT) on motor vehicles were reduced in varying proportions according to vehicle types and periods of 2009.
United Kingdom	May 2009 to March 2010 (but probably used up to October 2009).	£ 1 000 (conditional on the manufacturers adding another £ 1 000).	£ 300 million.	Accounted for about 10% of car sales in June 2009.	
United States	24 July to 24 August 2009.	\$3 500 to 4 500 bonuses.	\$3 billion.	Between 0.2 to 0.6 million vehicles (Council of Economic Advisers, 2009).	Tariff on Chinese tyres.

Source : OECD Secretariat; European Commission (2009); OECD (2009); and Council of Economic Advisers (2009).

To summarize, the government stimulus included the following methods:

1. Direct loans to automotive manufacturers, which proved the most direct and effective method to rescue auto companies in most of the countries during the crisis. The US government's bailout of GM and Chrysler is one of the biggest economic headlines dating back to the 2007 economic crisis.
2. Scrapping schemes, which were promoted by most countries' governments, proved to be an efficient way to boost auto sales in the short-term but were quite controversial due to their long-term impact.
3. Tax schemes which included tax reductions and exemptions were a very popular method adopted by almost all governments to spur consumption in automotive markets.
4. Incentives for investment in R&D and training was an indirect but long-term method to help the auto industry via better technology and better-trained employers.

5. Targeted “green” incentives to promote electric, hybrid, and other environmental-friendly vehicles were one of the most important long-term methods, which clearly show the trend of the automotive industry’s future.
6. Other liquidity help for firms, like subsidies for manufacturers’ financing operations, also showed obvious effects with regards to assisting manufacturers.
7. Exchange-rate management was put on the agenda in countries like the US, China, Japan, and South Korea in order to enhance the competitiveness of domestic suppliers since exchange volatility can influence the volume of potential gains during trading on an international level.
8. Tariffs or quantitative limits on trade were, for example, adopted by the Russian government to increase tariffs on imported cars and by the US government to level up the tariffs on Chinese tires. All protected their domestic manufacturers who benefitted to a certain degree.
9. Other domestic content rules & practices, like the EU temporarily suspending free trade agreements with their Asian counterparts, had a certain effect on aiding their domestic markets during crisis.

8. The Future of the Automotive Industry

The crisis in the automotive industry was a sharp decline in a normal business cycle, rather than a bubble. Auto demand in the developed countries is expected to pick up again, though there may be changes in consumers' choices. In the emerging market, continued growth of GDP and populations will provide additional stimulus to demand.

In the developed world, the automotive industry will recover to pre-crisis levels as the global economy recovers. Populations continue to age; older households divert a greater proportion of income to vehicle purchase as they are relieved of the expense of raising children. Consumers may well be more cautious about new car purchases in the future, shifting to slightly less expensive cars. Thus the demand recovery may not be completely proportionate, but will perhaps be in the region of 95%.⁷⁰

In the developing world, demand is likely to return to 100% (even 105%) of previous levels with the return of economic health. One of the reasons is that a large fraction of new car demand is "first car" rather than "replacement car" demand; hence it is less deferrable. The used car market is often very immature and inefficient, so demand flows primarily to new cars. Car finance availability has been patchy at best, such that few future buyers are currently weighed down by vehicle debt. The income elasticity of demand is higher than in the developed world, as even a small change in average GDP can bring millions of new buyers into car-buying range very quickly. As car purchase credit does become more available, more people will enter the car-buying market more

70 MacDuffie, 2009.

quickly.⁷¹

The nature of competition will have a particular influence. In the future, the US market is expected to be more similar to the European one. Many autoworkers compete intensively for 8% - 15% of the overall market. Developing countries will experience intense competition among multinational OEMs, and new domestic firms will arise, strengthened by this competition. New entrants (e.g. Geely in China and Tata in India) will focus initially on high demand in their home markets, but will in a short time also start to export to developed markets. Not all automakers will be huge; a place will remain for highly capable smaller firms.

In the future, the concept of “Build where you sell” will prevail; new entrants will pursue both mergers and acquisitions and “transplant” strategy. Large automakers, by holding a more integral vehicle design and increasing levels of technology, will continue to dominate the industry. Green initiatives will prompt a multiplicity of new technologies and fuel types, with none achieving dominance in short-to-medium term. Employment levels will continue to be relatively high, although differently distributed. Wages will be lower and benefits under pressure.

A greater availability of low-cost cars (e.g. Tata’s Nano, selling for around \$3,500) is expected in the emerging markets. At higher incomes, ownership levels will increase to multiple vehicles per family. Even where the very best public transportation is available, total person trips tend to hit a threshold and future growth is absorbed by vehicle-based mobility.

Overcapacity is always a problem in the US, where it is up to 40%. It also exists in Japan and Germany, which hit between 11-20%. It is forecasted that overcapacity of

71 MacDuffie, 2009.

global manufacturing will increase dramatically in the next five years.⁷² By 2016, China will have the most capacity, followed by other Asian countries as a whole excluding Japan. Therefore, balance capacity of production volumes becomes sufficient for OEMs to expand their business while at the same time keeping down fixed costs to maintain a healthy margin.

There are several effective ways to solve overcapacity. First, cutting production on the manufacturers' part. Second, encouraging consolidation and joint ventures. Third, driving sales by incentives. Fourth, raising brand profile to fortify market share. Fifth, increasing vehicle exports to existing or new markets.

Other main factors and implications on the future of automotive industry are as follows:

Manufacturing will move within regions, to lower labor cost areas.

Product development will require new technological features, which will determine whether products succeed. Increased use of common parts may increase product development costs while decreasing purchasing costs.

Automakers will retain a crucial systems integration role and hence will have more power than suppliers. Some suppliers may amass enough capabilities to become automakers.

Purchases of small cars will closely follow the trend of gasoline prices. Controlling fuel taxes, regulating fuel efficiency standards, and carbon regulations are ways to change consumer and automaker behavior with respect to fuel efficiency.

It is uncertain if employment will return to previous levels. The change in the

72 KPMG. *KPMG's Global Automotive Executive Survey*. 5 January 2012. 30 November 2012 <<http://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/global-automotive-survey-2012/Pages/default.aspx>>

industry might also have negative implications for employment needs. Production will continue to move to lower cost areas and closer to emerging markets, where the future growth of demand is expected. Auto development will create more stable and high-quality employment in the future.

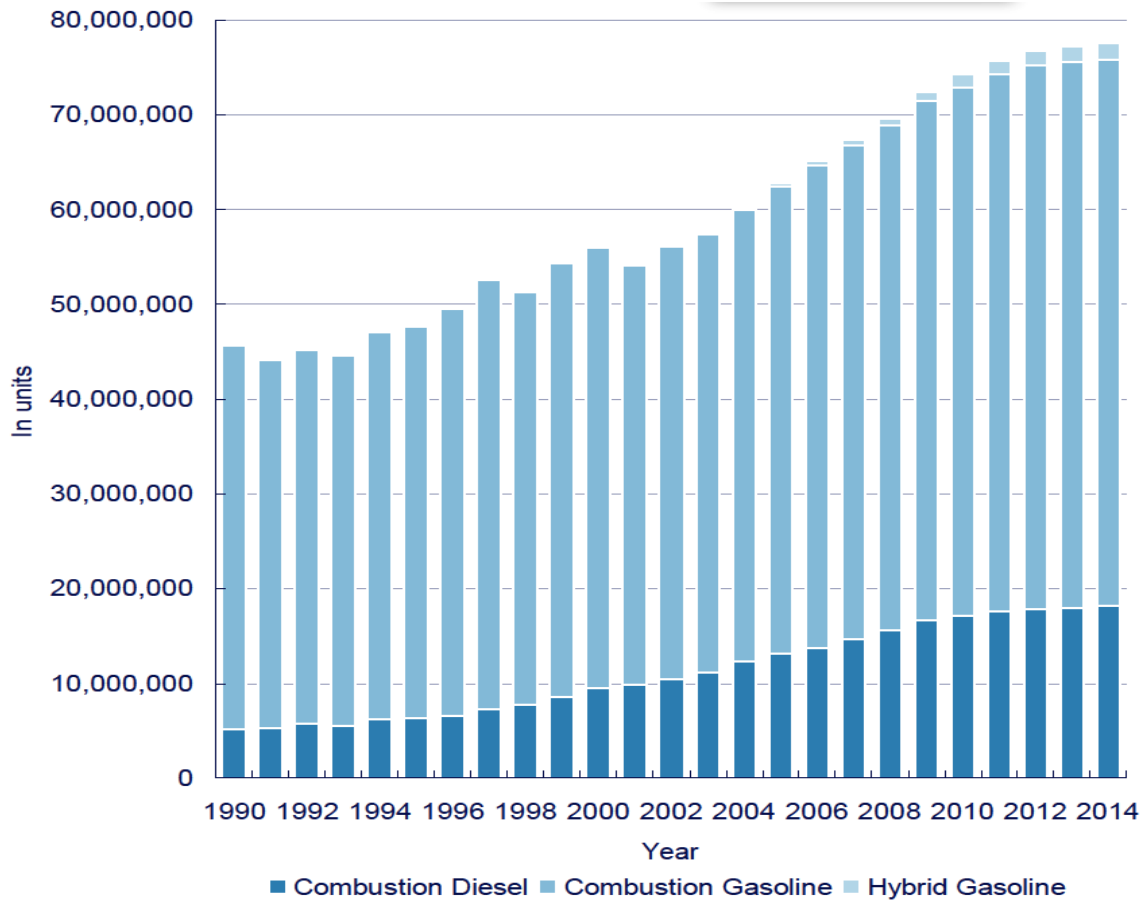
Last but not the least, there will be a long-term perspective on the automotive industry and climate change.⁷³ Climate change and energy security concerns are the hot topic in recent years for the automotive industry. CO₂ reduction in the automotive industry has been discussed for quite a while. Fuel savings and emissions reduction are two different problems but lead to the same challenge – how to make vehicles more efficient, while keeping additional costs at an acceptable level so as to make “green” vehicles attractive to consumers. Low-emission vehicles offer the most convincing solution on the road to sustainable mobility. Manufacturers will focus on innovation to drive forward cleaner, “greener,” and more affordable vehicles. Further CO₂ reduction will come from improved powertrain and the development of more renewable energy source. What vehicle manufacturers spend on new technologies will be to gain more opportunities for themselves in the future, as well as building a base of protection for their future development. Climate change is a global challenge which will affect us all; therefore, solutions must be global. There is a trend that vehicle manufacturers, fuel and energy producers, traffic management, logistics providers, politician, legislators, consumers, and drivers will be working together to deliver the greatest benefits to society.

74

73 Price Waterhouse Coopers. The automotive industry and climate change -- Framework and dynamics of the CO₂ (r)evolution. Cooperation Research. Stuttgart: PwC, 2007.

74 ACEA. The Automobile Industry and Climate Change -- A Long-term Perspective. 5 August 2009. 30 November 2012

Figure 8-1 Hybrid production by country of brand origin 2006 and 2014



Source: PwC Automotive Institute

9. Conclusion

This paper presented a detailed analysis on how the automotive crisis of 2008 affected car manufacturers. First examined was the relationship between the financial crisis and the auto industry. As consumer credit and car loans tightened, car sales decreased dramatically. Economic activity in the automotive industry usually moves in line with the overall business cycle and a high correlation is also found between car sales and private consumption. Then, the paper focused on American auto manufacturers, especially the Big Three firms – namely General Motors, Chrysler and Ford – since they were affected the most. It was seen that automobile sales in the United States were in a decline even before the crisis started, mainly due to other factors which were closely related to the auto industry such as the oil crisis. This directly led to American consumers making a shift in their priorities and opting to buy smaller vehicles rather than the large SUV's, which had been the common choice.

The Big Three also pointed to some labor related statistics which showed how many personnel were employed by the auto industry in the United States. Besides this the hourly wages as well as benefits were discussed in some detail. In terms of salaries of employees related to this industry, it was seen that experience mattered greatly, and unionized workers such as from UAW got benefits from their employers through schemes like the Jobs Bank. It was also argued that from the perspective of the employers, it was a huge expenditure to do business with the workers since they were getting so many benefits such as hourly rates, paid holidays, and even pensions. Therefore many analysts argued that this scheme was a great hurdle keeping the companies from doing much more

progressive things where the capital could have been applied.

It was also argued that the American companies were in severe crisis because they had a lot of brands to look after, so after this two main types of claims were analyzed where the first argued that the failure of the auto industry would be a great failure for the economy itself. Supporters of this argument asserted that since the auto industry was hiring millions of employees as well as helping the nation to lift its standards of living, therefore it should be rescued, whereas the opponents said that the industry should be made accountable for its mismanagement.

One key point to note here is regarding Chapter 11 bankruptcy; many arguments were in favor as well as opposition of applying this procedure. Some points were noted which focused on asking the U.S government to facilitate the sale of the auto companies' assets as well as taking a more active role in the restructuring processes of the auto industries. In contrast, many arguments were also against any government intervention in this industry.

A timeline was discussed in detail regarding the federal government's bailout procedure as well as how the bailout bill was approved. Later on the issues dealing with bankruptcy of General Motors and Chrysler were also noted. Some image issues regarding the firms were discussed in which General Motors was apologetic for their actions, as well as the selling of assets by the CEO's of the Big Three firms in order to answer the critics and maintain a positive image in the eye of common consumer. The Big Three firms also intended to invest in more eco-friendly technologies in the future.

After the analysis of the American auto industry, there was a brief look at how the auto industry crisis affected other major markets around the globe. In Europe, the United

Kingdom and Italy were observed to be impacted much harder due to the crisis as compared to Germany which relied on the positive image of its brands, its power of export, and the rise in demand from developing economies to lift up its auto industry. A detailed analysis was also given on Canada and how it managed to emerge from the crisis; here the top-level management of auto firms was observed to be more responsible in accepting their responsibilities afterwards the crisis as compared to their American counterparts.

The Asian markets were also affected greatly by the crisis but they also emerged much stronger, the Chinese manufacturers were aided by a huge stimulus from the government, the Indians relied on their domestic consumption, and the Japanese took difficult management decisions regarding many issues in order to ensure their survival as well as their ability to compete. In all of Asia, the Korean auto manufacturers were seen as the least affected by the crisis and according to some analysts they even profited while the majority of the key global manufacturers were suffering from losses.

Finally, the future of automotive industry and the role of governments during crisis was discussed. Though the government intervention was quite controversial, it turned out to be successful. The future trends of the auto industry in the developed and developing world were also examined, along with some efficient measures governments might use going forward to rescue the auto companies. The measures taken did, in general, benefit the auto sector but the drawbacks they created cannot be ignore.

The crisis in the automotive industry was not just a result of the credit crisis. Otherwise, the industry only would have needed to wait until growth picked up again. In reality, it needed to think how to restructure and rethink products and strategies. The

crisis in the automotive industry was not only an outcome of the financial crisis, but also an opportunity to seek a new model of sustainability for the industry.

The restructuring of the automotive industry will bring both new winners and new losers. Production will shift to new auto zones, and new fuel-efficient vehicles can potentially lead to a new boom in vehicle sales. The final questions with regard to the crisis and the future of the automotive industry are which companies and countries will be able to take advantage of the industry's new opportunities, and how this can be done as a joint collaboration between all social partners.

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List of Abbreviations

AvtoVAZ – Avtomobilniy Volzhsky Avtomobilny Zavod (Volga Automobile Plant)

BMW – Bavaria Motor Works

CAAM – China Association of Automobile Manufacturers

CAW – Canadian Auto Workers

CEO – Chief Executive Officer

CERA – Chartered Enterprise Risk Analyst

CFMA – Changan Ford Mazda Automobile

CNN – Cable News Network

CTF – Canadian Taxpayers Federation

DBRS – Dominion Bond Rating Service

EIA – Energy Information department

Fiet S.p.A – Fabbrica Italiana Automobili Torino (Italian Automobile Factory of Turin)

GAZ – Gorkovsky Avtomobilny Zavod (Gorky Automobile Plant)

GDP – Gross Domestic Product

GM – General Motor

IEA – International Energy Agency

ILO – International Labor Organization

INSEE – National Institute of Statistics and Economic Studies

ISTAT – Istituto Nazionale di Statistica (Italian National Statistical Institution)

KIA – Korean's second largest automobile manufacturer

LDF – Leyland DAF Vans

NAFTA – Northern American Free Trade Agreement

OECD – Organization for Economic Cooperation and Development

OPEC – Organization of the Petroleum Exporting Countries

PBGC – Pension Benefit Guaranty Corporation

R&D – Research and Development

SAIC – Beijing Automotive Industry Holding Co Ltd

SIGTARP – Special Inspector General for the Troubled Asset Relief Program

SUV – Sport Utility Vehicle

TARP – Troubled Asset Relief Program

U.K. – United Kingdom

U.S. – United States

UAW – United Automobile Workers

APPENDIXES

APPENDIX A

Table A Sale and share of total market by manufacturer

	Sales			ETD Sales			%	Market	Share	
	Sep-12	Sep-11	% Chg	2012	2011	% Chg	Sep-12	Sep-11	YTD 2012	YTD 2011
General Motors Corp.	210,245	207,145	1.5	1,967,715	1,902,149	3.4	17.7	19.7	18.1	20
Total Cars	88,996	68,895	29.2	812,678	764,196	6.3	7.5	6.5	7.5	8
Domestic Car	88,540	67,484	31.2	809,752	735,216	10.1	7.4	6.4	7.4	7.7
Import Car	456	1,411	67.7	2,926	28,980	-89.9	...	0.1	...	0.3
Total Light Trucks	121,249	138,250	12.3	1,155,037	1,137,953	1.5	10.2	13.1	10.6	12
Domestic Truck	121,249	138,250	12.3	1,155,037	1,137,953	1.5	10.2	13.1	10.6	12
Import Truck	...	...	...	...	...	...	...	...	...	...
Ford Motor Company	174,454	174,860	-0.2	1,685,068	1,599,711	5.3	14.7	16.6	15.5	16.8
Total Cars	50,694	49,876	1.6	586,197	568,970	3	4.3	4.7	5.4	6
Domestic Car	50,694	49,876	1.6	586,197	568,970	3	4.3	4.7	5.4	6
Import Car	...	...	...	...	...	...	...	...	...	...
Total Light Trucks	123,760	124,984	-1	1,098,871	1,030,741	6.6	10.4	11.9	10.1	10.8
Domestic Truck	123,760	124,984	-1	1,098,871	1,030,741	6.6	10.4	11.9	10.1	10.8
Import Truck	...	...	...	...	...	...	...	...	...	...
Chrysler LLC	142,041	127,334	11.5	1,250,670	1,009,411	23.9	11.9	12.1	11.5	10.6
Total Cars	42,050	33,217	26.6	377,781	258,239	46.3	3.5	3.2	3.5	2.7
Domestic Car	42,050	33,217	26.6	377,781	258,239	46.3	3.5	3.2	3.5	2.7
Import Car	...	...	...	...	...	...	...	...	...	...
Total Light Trucks	99,991	94,117	6.2	872,889	751,172	16.2	8.4	8.9	8	7.9
Domestic Truck	99,991	94,117	6.2	872,889	751,172	16.2	8.4	8.9	8	7.9
Import Truck	...	...	...	...	...	...	...	...	...	...
Toyota Motor Sales USA Inc.	171,910	121,451	41.5	1,571,424	1,194,524	31.6	14.5	11.5	14.4	12.5
Total Cars	97,662	67,097	45.6	915,274	652,290	40.3	8.2	6.4	8.4	6.9
Domestic Car	58,658	39,550	48.3	547,239	382,210	43.2	4.9	3.8	5	4
Import Car	39,004	27,547	41.6	368,035	270,080	36.3	3.3	2.6	3.4	2.8
Total Light Trucks	74,248	54,354	36.6	656,150	542,234	21	6.2	5.2	6	5.7
Domestic Truck	64,438	45,658	41.1	556,660	453,307	22.8	5.4	4.3	5.1	4.8
Import Truck	9,810	8,696	12.8	99,490	88,927	11.9	0.8	0.8	0.9	0.9
American Honda Motor Co Inc.	117,211	89,532	30.9	1,066,458	859,797	24	9.9	8.5	9.8	9
Total Cars	62,657	43,809	43	585,649	465,740	25.7	5.3	4.2	5.4	4.9

Domestic Car	55,182	34,556	59.7	508,372	364,630	39.4	4.6	3.3	4.7	3.8
Import Car	7,475	9,253	19.2	77,277	101,110	-23.6	0.6	0.9	0.7	1.1
Total Light Trucks	54,554	45,723	19.3	480,809	394,057	22	4.6	4.3	4.4	4.1
Domestic Truck	54,172	40,626	33.3	442,143	363,329	21.7	4.6	3.9	4.1	3.8
Import Truck	382	5,097	92.5	38,666	30,728	25.8	...	0.5	0.4	0.3
Nissan North America Inc.	91,907	92,964	-1.1	866,484	774,079	11.9	7.7	8.8	7.9	8.1
Total Cars	56,953	61,685	-7.7	550,571	513,809	7.2	4.8	5.9	5.1	5.4
Domestic Car	47,527	50,394	-5.7	451,573	406,784	11	4	4.8	4.1	4.3
Import Car	9,426	11,291	16.5	98,998	107,025	-7.5	0.8	1.1	0.9	1.1
Total Light Trucks	34,954	31,279	11.7	315,913	260,270	21.4	2.9	3	2.9	2.7
Domestic Truck	17,251	14,719	17.2	156,886	118,568	32.3	1.5	1.4	1.4	1.2
Import Truck	17,703	16,560	6.9	159,027	141,702	12.2	1.5	1.6	1.5	1.5
Hyundai Motor America	60,025	52,051	15.3	539,814	492,914	9.5	5	4.9	5	5.2
Total Cars	46,850	41,297	13.4	443,669	393,201	12.8	3.9	3.9	4.1	4.1
Total Light Trucks	13,175	10,754	22.5	96,145	99,713	-3.6	1.1	1	0.9	1
Mazda Motor of America Inc.	24,135	25,521	-5.4	209,484	191,315	9.5	2	2.4	1.9	2
Total Cars	16,695	14,519	15	141,248	120,305	17.4	1.4	1.4	1.3	1.3
Domestic Car	1,403	4,163	66.3	29,653	24,914	19	0.1	0.4	0.3	0.3
Import Car	15,292	10,356	47.7	111,595	95,391	17	1.3	1	1	1
Total Light Trucks	7,440	11,002	32.4	68,236	71,010	-3.9	0.6	1	0.6	0.7
Domestic Truck	...	180	100	505	2,082	-75.7	...	...	...	...
Import Truck	7,440	10,822	31.3	67,731	68,928	-1.7	0.6	1	0.6	0.7
Mitsubishi Motors N A, Inc.	4,806	5,803	17.2	46,122	65,875	-30	0.4	0.6	0.4	0.7
Total Cars	1,934	2,671	27.6	26,604	36,866	-27.8	0.2	0.3	0.2	0.4
Domestic Car	572	1,118	48.8	13,397	20,813	-35.6	...	0.1	0.1	0.2
Import Car	1,362	1,553	12.3	13,207	16,053	-17.7	0.1	0.1	0.1	0.2
Total Light Trucks	2,872	3,132	-8.3	19,518	29,009	-32.7	0.2	0.3	0.2	0.3
Domestic Truck	16	778	97.9	483	9,123	-94.7	...	0.1	...	0.1
Import Truck	2,856	2,354	21.3	19,035	19,886	-4.3	0.2	0.2	0.2	0.2
Kia Motors America Inc.	48,105	35,609	35.1	434,914	367,405	18.4	4	3.4	4	3.9
Total Cars	33,854	18,505	82.9	302,127	210,917	43.2	2.8	1.8	2.8	2.2
Total Light Trucks	14,251	17,104	16.7	132,787	156,488	-15.1	1.2	1.6	1.2	1.6
Subaru of America Inc.	27,683	20,934	32.2	245,503	195,550	25.5	2.3	2	2.3	2.1
Total Cars	21,286	14,086	51.1	187,162	137,199	36.4	1.8	1.3	1.7	1.4
Domestic Car	14,707	10,746	36.9	120,793	106,129	13.8	1.2	1	1.1	1.1
Import Car	6,579	3,340	97	66,369	31,070	113.6	0.6	0.3	0.6	0.3
Total Light Trucks	6,397	6,848	-6.6	58,341	58,351	...	0.5	0.6	0.5	0.6
Domestic Truck	139	256	45.7	1,538	1,970	-21.9	...	...	...	...
Import Truck	6,258	6,592	-5.1	56,803	56,381	0.7	0.5	0.6	0.5	0.6

American Suzuki Motor Corp.	1,921	2,026	-5.2	19,149	20,284	-5.6	0.2	0.2	0.2	0.2
Total Cars	416	469	11.3	4,391	5,447	-19.4	...	...	...	0.1
Domestic Car	...	...	...	...	...	...	...	...	...	...
Import Car	416	469	11.3	4,391	5,447	-19.4	...	...	...	0.1
Total Light Trucks	1,505	1,557	-3.3	14,758	14,837	-0.5	0.1	0.1	0.1	0.2
Domestic Truck	157	188	16.5	1,436	1,643	-12.6	...	...	...	...
Import Truck	1,348	1,369	-1.5	13,322	13,194	1	0.1	0.1	0.1	0.1
Mercedes-Benz	24,950	23,428	6.5	207,048	182,510	13.4	2.1	2.2	1.9	1.9
Total Cars	15,451	14,496	6.6	124,665	111,237	12.1	1.3	1.4	1.1	1.2
Total Light Trucks	9,499	8,932	6.3	82,383	71,273	15.6	0.8	0.8	0.8	0.7
Domestic Truck	4,416	5,100	13.4	46,089	40,817	12.9	0.4	0.5	0.4	0.4
Import Truck	5,083	3,832	32.6	36,294	30,456	19.2	0.4	0.4	0.3	0.3
Saab	...	429	100	480	4,612	-89.6	...	...	...	...
Total Cars	...	381	100	430	4,482	-90.4	...	...	...	...
Total Light Trucks	...	48	100	50	130	-61.5	...	...	...	...
Domestic Truck	...	48	100	50	130	-61.5	...	...	...	...
Import Truck	...	...	...	...	...	...	...	...	...	...
Volvo	4,977	5,042	-1.3	51,634	52,155	-1	0.4	0.5	0.5	0.5
Total Cars	2,194	2,868	23.5	26,604	29,805	-10.7	0.2	0.3	0.2	0.3
Total Light Trucks	2,783	2,174	28	25,030	22,350	12	0.2	0.2	0.2	0.2
Volkswagen of America Inc.	36,339	27,036	34.4	323,090	235,458	37.2	3.1	2.6	3	2.5
Total Cars	32,487	23,599	37.7	284,877	200,182	42.3	2.7	2.2	2.6	2.1
Domestic Car	17,702	15,746	12.4	151,645	138,752	9.3	1.5	1.5	1.4	1.5
Import Car	14,785	7,853	88.3	133,232	61,430	116.9	1.2	0.7	1.2	0.6
Total Light Trucks	3,852	3,437	12.1	38,213	35,276	8.3	0.3	0.3	0.4	0.4
Audi of America Inc.	12,302	9,725	26.5	100,694	84,981	18.5	1	0.9	0.9	0.9
Total Cars	8,995	6,950	29.4	73,455	60,646	21.1	0.8	0.7	0.7	0.6
Total Light Trucks	3,307	2,775	19.2	27,239	24,335	11.9	0.3	0.3	0.2	0.3
BMW of North America Inc.	21,761	21,750	0.1	186,397	177,679	4.9	1.8	2.1	1.7	1.9
Total Cars	12,695	15,407	17.6	127,752	128,033	-0.2	1.1	1.5	1.2	1.3
Domestic Car	...	140	100	...	2,932	-100	...	...	...	...
Import Car	12,695	15,267	16.8	127,752	125,101	2.1	1.1	1.4	1.2	1.3
Total Light Trucks	9,066	6,343	42.9	58,645	49,646	18.1	0.8	0.6	0.5	0.5
Domestic Truck	7,496	6,334	18.3	56,499	48,995	15.3	0.6	0.6	0.5	0.5
Import Truck	1,570	9	999.9	2,146	651	229.6	0.1	...	...	...
Porsche Cars NA Inc.	2,736	2,170	26.1	25,015	22,664	10.4	0.2	0.2	0.2	0.2
Total Cars	1,366	1,240	10.2	14,681	12,633	16.2	0.1	0.1	0.1	0.1
Total Light Trucks	1,370	930	47.3	10,334	10,031	3	0.1	0.1	0.1	0.1
Jaguar *	1,004	1,111	-9.6	9,550	9,315	2.5	0.1	0.1	0.1	0.1

APPENDIX B

Table B Top 20 vehicles, current month's sales

	Sep-12	% Chg from '11	YTD 2012		% Chg from YTD 2011
Ford F - Series PU	55,077	1.2	463,733		11.4
Chevrolet Silverado PU	36,425	-16.6	298,200		0.6
Toyota Camry	34,252	37.8	314,788		37.1
Honda Accord	29,182	56.6	247,847		36.9
Dodge Ram PU	25,973	5.9	213,593		20
Chevrolet Cruze	25,787	42.5	180,600	-3.7	
Nissan Altima	24,448	0.4	234,040		16.7
Ford Escape	23,148	14.5	200,075		6.5
Toyota Corolla / Matrix	23,026	42.6	222,703		19.2
Honda CR-V	22,268	13.6	213,381		32.5
Honda Civic	21,546	57	234,029		39.8
Ford Focus	19,736	91.4	186,686		36
Toyota Prius	18,932	103	183,340		96.6
Hyundai Elantra	18,305	27.2	152,575		3.1
Hyundai Sonata	17,332	-4.7	175,346		0.3
Chevrolet Equinox	15,835	2.2	166,862		15
Chevrolet Impala	15,259	10.4	140,179		1.5
Volkswagen Jetta	14,750	-1.8	127,028	-7.3	
Kia Optima	14,304	131	114,728		105.8
Ford Explorer	14,049	23.9	117,803		21.5

Source: www.motorintelligence.com

APPENDIX C

Table C Segment totals, ranked by Sep unit sales

	Sep-12	% Chg from Sep '11	YTD 2012	% Chg from	YTD 2011
Cars	600,956	23.3	5,656,927		19.5
Midsize	278,935	15.8	2,800,376		21.6
Small	240,288	49.9	2,099,090		24.2
Luxury	80,863	-1.2	750,206		10.6
Large	870	-79.4	7,255	-88.3	
Light-duty trucks	587,909	3.8	5,243,022		9.6
Pickup	165,695	-3.4	1,416,783		8.5
Cross-over	250,133	13.1	2,234,046		9.1
Minivan	67,151	3.2	640,725		16.9
Midsize SUV	57,979	6.4	520,044		11.6
Large SUV	18,107	-29.6	168,771	-7.4	
Small SUV	16,578	6.9	150,219		16.8
Luxury SUV	12,266	-6.3	112,434		5.7
Total SUV/Cross-over	355,063	7.6	3,185,514		8.7
Total SUV	104,930	-3.6	951,468		7.7
Total Cross-over	250,133	13.1	2,234,046		9.1

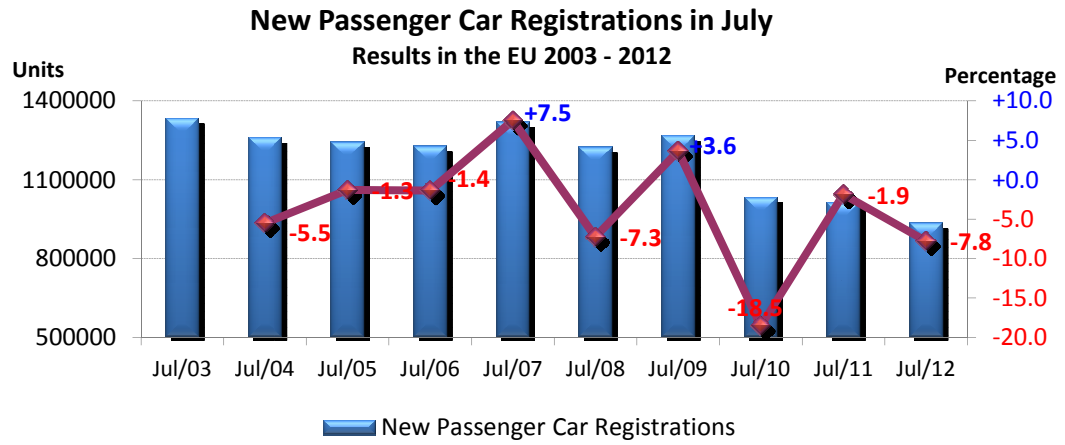
Source: www.motorintelligence.com

APPENDIX D

Table D New passenger car registrations by market

EUROPEAN UNION*	July '12	July '11	% Chg 12/11	Jan - Jul '12	Jan - Jul '11	% Chg 12/11
AUSTRIA	28,268	29,307	-3.5	215,226	216,900	-0.8
BELGIUM	36,701	34,886	+5.2	321,817	361,331	-10.9
BULGARIA	1,616	1,826	-11.5	11,386	10,992	+3.6
CYPRUS	1,021	979	+4.3	7,447	9,077	-18.0
CZECH REPUBLIC	11,158	12,118	-7.9	105,391	100,402	+5.0
DENMARK	16,718	13,068	+27.9	101,001	100,874	+0.1
ESTONIA	1,526	1,173	+30.1	10,449	8,676	+20.4
FINLAND	6,443	8,616	-25.2	73,372	79,974	-8.3
FRANCE	148,924	160,199	-7.0	1,197,906	1,385,283	-13.5
GERMANY	247,860	260,907	-5.0	1,882,261	1,883,486	-0.1
GREECE	5,757	9,940	-42.1	38,186	65,216	-41.4
HUNGARY	4,475	3,719	+20.3	32,260	26,887	+20.0
IRELAND	4,431	4,079	+8.6	71,065	81,158	-12.4
ITALY	109,452	138,510	-21.0	924,583	1,153,332	-19.8
LATVIA	895	913	-2.0	6,357	5,995	+6.0
LITHUANIA	1,051	1,072	-2.0	7,253	7,695	-5.7
LUXEMBURG	4,195	4,529	-7.4	32,851	33,125	-0.8
NETHERLANDS	31,078	42,092	-26.2	362,890	370,438	-2.0
POLAND	20,898	23,134	-9.7	170,090	161,811	+5.1
PORTUGAL	9,257	14,269	-35.1	62,661	106,128	-41.0
ROMANIA	6,005	8,501	-29.4	39,348	40,259	-2.3
SLOVAKIA	6,252	5,583	+12.0	40,568	39,766	+2.0
SLOVENIA	4,105	4,743	-13.5	32,432	37,685	-13.9
SPAIN	65,322	78,914	-17.2	471,393	521,126	-9.5
SWEDEN	18,076	19,621	-7.9	160,709	176,663	-9.0
UNITED KINGDOM	143,884	131,634	+9.3	1,201,564	1,161,272	+3.5
EUROPEAN UNION (EU27)*	935,368	1,014,332	-7.8	7,580,466	8,145,551	-6.9
<i>EU15</i>	876,366	950,571	-7.8	7,117,485	7,696,306	-7.5
<i>EU11*</i>	59,002	63,761	-7.5	462,981	449,245	+3.1
ICELAND	574	444	+29.3	5,428	3,500	+55.1
NORWAY	11,920	11,189	+6.5	81,275	79,694	+2.0
SWITZERLAND	24,998	25,822	-3.2	202,308	184,296	+9.8
<i>EFTA</i>	37,492	37,455	+0.1	289,011	267,490	+8.0
<i>EU27*+EFTA</i>	972,860	1,051,787	-7.5	7,869,477	8,413,041	-6.5
<i>EU15+EFTA</i>	913,858	988,026	-7.5	7,406,496	7,963,796	-7.0

Figure D New passenger car registrations in July



APPENDIX E

Table E Sales by top manufacturing group in China

Sales by Top Manufacturing Groups in China			
Top International Groups		Aug. 2012	Aug. market share
	1. Volkswagen Group	1,790,788	14%
	2. General Motors Group	921,185	7%
	3. Hyundai Group	840,549	7%
	4. Toyota Group	636,247	5%
	5. Renault-Nissan Group	621,489	5%
	6. Honda Group	430,904	3%
	7. PSA Group	273,451	2%
	8. Ford Group	270,943	2%
	9. BMW Group	197,452	2%
10. Suzuki Group	176,575	1%	
Top Domestic Groups		Aug. 2012	Aug. market share
	1. SAIC	2,816,714	23%
	2. DFM	1,884,591	15%
	3. FAW	1,586,289	13%
	4. Changan	1,235,967	10%
	5. BAIC	983,861	8%
	6. Guangzhou	474,312	4%
	7. Brilliance	394,538	3%
	8. Great Wall	379,004	3%
	9. Chery	363,717	3%
10. Geely	289,068	2%	

Source: LMC Automotive Monthly Report

APPENDIX F

BEIJING, Jan 17 (Reuters) - Car sales in China climbed 5.2 percent in 2011, the slowest pace since the nation's car culture took off at the turn of the century, as consumers shunned local brands after Beijing scrapped tax incentives for small cars.

A total of 14.5 million sedans, sport utility vehicles and multi-purpose vehicles were shipped to dealers last year, the China Association of Automobile Manufacturers (CAAM) said.

Table F China 2011 car sales up 5.2 pct

	Dec	pct change	y-t-d	pct

NATIONAL TOTAL BY CAAM				
Cars	1,368,900	4.6	14,472,400	5.2
Vehicles	1,689,600	1.4	18,505,100	2.5

The following table shows passenger car and vehicle sales in December and year-to-date by manufacturers (units; percent changes are from a year earlier).

	Dec	pct change	y-t-d	pct

*BMW	NA	NA	232,586	37.6
BMW brands	NA	NA	217,068	37.0
7 Series	NA	NA	33,500	26.2
5 Series	NA	NA	70,850	68.4
3 Series	NA	NA	46,871	34.0
MINI	NA	NA	15,518	47.7
Chery	NA	NA	641,700	
-5.9				
Geely	47,755	-15.8	421,385	
1.3				
Emgrand	10,941	NA	NA	NA
Englon	16,083	NA	NA	NA
GLEagle	20,731	NA	NA	NA
Mercedes-Benz	23,230	30	198,520	35.0
S-Class	3,700	NA	31,050	NA
SUV	NA	NA	54,335	85
GLK	NA	NA	23,805	NA
M-Class	NA	NA	15,860	NA
* Dongfeng	204,338	18.1	2,172,723	
11.7				
PV	163,324	24.0	1,646,410	16.1
CV	41,014	-0.5	526,313	-0.3
DF Nissan JV	132,392	20.3	1,477,289	15.8
PV	92,957	34.0	960,775	27.0
CV	39,435	-3.0	516,514	-0.4

DF PSA JV	42,095	5.2	404,139	8.2
DF Honda	26,797	36.7	255,468	-2.0
DF Own brand car	1,475	-46.9	26,028	-6.0
Dongfeng Yueda Kia	NA	NA	432,518	29.0
*Changan	NA	NA	2,008,500	
-15.6				
Chongqing Changan	146,250	-10.2	1,663,841	-10.1
CFM	41,623	-3.1	418,600	1.7
FAW	NA	NA	2,601,400	1.7
Nissan	119,000	26.7	1,247,700	
21.9				
*Volkswagen	NA	NA	2,260,000	
17.7				
VW brand	NA	NA	1,720,000	13.8
Audi brand	NA	NA	313,036	37.0
Imported	NA	NA	57,900	89.0
Skoda	NA	NA	220,100	21.9
Bentley	NA	NA	1,780	97.6
Lamborghini	NA	NA	403	63.2
SAIC	327,091	13.2	4,008,967	
12.0				
Shanghai VW	104,928	12.3	1,165,827	16.4
Shanghai GM	80,529	-10.1	1,231,539	18.5
Own brand cars	16,888	20.2	162,004	1.0
SAIC-GM-Wuling	114,570	36.0	1,301,118	5.4
*Ford Motor	49,238	10	519,390	7.0
CFM (Ford brands)	30,788	4.0	320,658	5.0
Jiangling	17,509	17.0	194,588	9.0
Great Wall Motor	NA	NA	494,800	22.5
Export	NA	NA	85,000	50.0
Honda Motor	78,319	35.8	617,764	-4.5
Guangqi Honda	51,522	35.3	362,294	-6.1
Dongfeng Honda	26,797	36.7	255,470	-2.0
Mazda Motor	23,456	-33.0	214,799	-10.0
*Toyota Motor	NA	NA	883,000	-4.4
*General Motors	196,797	9.8	2,547,171	8.3
Shanghai GM	77,699	10.8	1,200,355	16.2
Buick			645,537	17.4
Chevrolet			595,068	9.4
Cruze			221,196	NA
Sail			166,693	NA
Cadillac			30,008	72.8
SAIC-GM-Wuling	113,491	35.7	1,285,820	4.8
Wuling			1,193,708	3.9
Sunshing minivan			572,980	NA
Baojun			21,854	NA
FAW-GM	5,268	NA	56,132	NA
*BYD	52,009	1.4	448,484	-13.7
BAIC Group	NA	NA	1,526,300	
2.4				

* Ford's China car sales, including CFMA, excluded Mazda's sales in 2011.

* Toyota's 4.4 percent sales decline in 2010 is calculated based on its 2010 figure.

* Sales of GM's Sunshine van, which accounts for 48 percent of SGMW's sales, were calculated based on GM data. Baojun was launched in August of 2011. Shanghai GM and SGMW's sales include domestic sales only.

* BYD's sales include domestic passenger car sales only.

* VW's sales including models sold in Mainland China and Hong Kong. Year-on-year growth rate of Skoda, Bentley and Lamborghini are calculated based on 2010 figures.

Imported Audi sales are for Mainland China only.

* BMW sales include BMW and Mini only.

* Dongfeng's sales include the Hong Kong listed company only, which holds most of its state parents auto assets.

* BAIC, FAW and Changan's data are provided by CAAM.

NOTE: General Motors Co operates a 49-51 car-manufacturing venture with top Chinese automaker SAIC Motor Corp in Shanghai. It also makes mini-vans and pick-up trucks in a three-way tie-up with SAIC and Liuzhou Wuling Automobile in southern China. It has another venture with FAW Group, making light commercial vehicles.

Toyota Motor Corp operates car ventures with Guangzhou Automobile Group Co Ltd and FAW Group in China.

Hyundai Motor Co has a car venture with BAIC Group. Kia Motors Corp makes cars in China in a tie-up with Dongfeng Motor Group, Jiangsu Yueda Investment Co Ltd.

Ford Motor makes Fiesta, Focus, Mondeo and other sedans in China in a three-way tie-up with Chongqing Changan Automobile Co Ltd and Japan's Mazda Motor Corp. It also holds 30 percent of Jiangling Motors Corp, which makes Ford's Transit vans.

Volkswagon makes cars in partnership with SAIC and FAW.

Honda Motor makes cars in tie-ups with Dongfeng Motor Group and Guangzhou Automobile Group Co.

Dongfeng Motor also makes vehicles in tie-ups with Honda Motor, Nissan Motor Co Ltd and PSA Peugeot-Citroen. The Dongfeng Nissan venture makes both cars and light commercial vehicles.

Daimler AG makes Mercedes-Benz models in China in partnership with Beijing Automotive Industry Holding Corp.

SAIC operates car ventures with GM and Volkswagen AG. It also makes mini-vehicles in southern China with GM and subsidiary Liuzhou Wuling Automobile.

BYD Co Ltd is 10 percent owned by U.S. billionaire investor Warren Buffett's Berkshire Hathaway.

Great Wall Motor Company is China's largest SUV maker.

Geely Automobile Holdings Ltd is a private-sector carmaker. Its parent Zhejiang Geely in August took over Ford Motor's Volvo car unit, marking the biggest acquisition in Chinese auto industry.

BMW AG makes cars in partnership with parent of Brilliance China Automotive Holdings Ltd.

APPENDIX G

Current and Future Trends in the Automotive Industry

The effects of the global economy were on the agenda at the annual Original Equipment Suppliers Association (OESA) meeting

by Sasha Banks, November 2010

At the annual meeting of the Original Equipment Suppliers Association (OESA) on November 8 in Detroit, Michigan, executives from leading automotive original equipment manufacturers and suppliers provided an economic and operational analysis of the global automotive industry. Here are some highlights.

How the Recession is Affecting Automakers

Overall, panelists expressed strong confidence in the economic recovery, although all agreed the turnaround is slow. Key future strategies for the automotive industry were to boost productivity and competitiveness (especially in Southern Europe), rein in healthcare and pensions costs, clean up the housing wreckage, and help the chronically unemployed.

In the United States, intensifying pressures for the domestic automotive industry are affecting the price of raw materials — up almost 50 percent — and the declining U.S. dollar. While U.S. exports have become very appealing, other countries are waging a currency war to prevent their currencies from dropping. Another factor affecting domestic automakers is the growing demand for high-tech equipment —boosting growth in production and exports by 10 to 30 percent. The rates of interest, currency, growth (less than 2 percent) and inflation, which remain low, are inhibiting a more accelerated recovery. Exacerbating this slow growth is deleveraging, where consumers increase

personal savings and reduce their debt; a 9 percent unemployment rate; and uncertainty over the future of government policies such as the Bush administration's tax cuts and the Obama administration's healthcare bill.

In Europe, the global recession continues to thwart economic recovery as it is plagued by high unemployment, weak wage gains, and a tight credit market. These factors put tremendous restraint on consumer spending and business investment—the latter of which is limited by substantial excess capacity and concerns about the strength and sustainability of recovery. Yet while Germany has benefitted from exports to China, Italy and Spain continue to struggle, and Greece has become virtually insolvent. In fact, according to the panelists, all holders of Greek bonds will have to take a 30 percent “haircut” on their investments.

Among emerging economies, the economic condition includes low debt, strong growth of six to eight percent, rising threats of inflation, interest and pressure on exchange rates, and increasing risks of an overheated asset bubble. China has an accumulated US\$2.2 trillion in reserves, speculated to mask its hidden debt, and the Asia/Pacific region is counting on exports to strengthen its domestic economy. Consumer spending accounts for only 35 percent of China's economy versus India's, whose consumer spending accounts for over 60 percent. While India's economy is behind China, be prepared for the surge. In Latin America, debt levels are low and sustained growth levels are estimated to be between five to six percent.

The Future of the Automotive Industry

Analysts predict a V-shaped growth pattern for the automotive sector globally. Yet, despite market-imposed capacity constraints, anticipated production is expected to

increase from 11 million units in 2010 to 15.5 million units by 2011. While the U.S. vehicle sales forecast is encouraging, healthcare and pension costs threaten margins for U.S. automakers. This year, the U.S. vehicle sales recovery has been driven by fleet sales — sales of a large number of vehicles to companies such as rental car agencies and commercial truck operators. This demand is defined by the miles driven per year, the average age of the fleet (9 years), population growth rates, and the age of drivers. Slowing the demand for new vehicles domestically is the growing rate of the retired population, who will drive their vehicles 40 percent less and make fewer new vehicle purchases.

As automakers gear for the next-generation industry transformation, panelists cited a number of factors that will be affecting the resurgence of original equipment manufacturers and suppliers alike. These include increasingly rigorous legislative mandates on emissions, safety and quality; intense pressure to scale, particularly for the emerging markets; new or evolving joint-venture business models due to all the recent mergers and acquisitions in the industry; and narrowing product portfolios. All of this must also be tied to a myopic focus on taking the number-one or number-two market positions and delivering best-in-class project margins.

Speaking about the future of the American automotive industry, Retired Vice Chairman of General Motors Company Bob Lutz delivered a riveting, sharp-tongued criticism of automakers. Lutz proclaimed that graduates of U.S. Ivy League business schools — including himself — have contributed to the demise of economic growth and product excellence in the United States. According to Lutz, MBAs don't understand the power of image, style or fashion trends on vehicle sales and the driver experience.

Instead, he said, MBA-produced analysis and profit optimization models focus only on short-term internal targets, and are not driven by the consumer market. In a plea for corrective action, Lutz demanded renewed focus on long-term product, service and customer experience excellence. He said General Motors' management should be less concerned with cost and more concerned with whether the vehicle is selling in the market. Lutz concluded with a mandate for the industry to correct its numbers-driven myopia with a broader perspective and corporate culture based on a long-term vision of consumer-driven product excellence.

Technology and Automobiles

Meeting speakers emphasized the influence of technological advances in the future of automotive companies. High-tech equipment will become more and more prevalent — for example, in-vehicle telematics, which provide drivers with instant safety, security and communications services. Practical applications include voice assisted driving directions, parking, acceleration and vehicle failure detection. Telematics-driven infotainment services include Bluetooth wireless and satellite radio. Future applications will include vehicle-to-vehicle communications to ensure vehicles keep a safe distance from each other to avoid and perhaps eliminate collisions. Automakers will be pressured to develop a global platform, upon which vehicles are designed, engineered and produced, to leverage the most capital-intensive equipment and resources initially, and then customize and accessorize later for regional preferences. Perhaps most critically, car manufacturers and suppliers will need to embrace a long-term consumer vision to succeed, in the same way in which Apple has done with its iPod, iPhone and iPad products.

APPENDIX H

Table H-1 Automotive Industry and Economy

(in € million)	Turnover	Investments	Public Revenue
Argentina	3,519		
Australia	18,929		887
Austria	13,900	580	8,315
Belgium	18,225	302	7,155
Brazil	26,997	1,141	
Canada	77469*	2496**	9,701
China	86,984	5,330	
Croatia	205	20	1
Czech Rep.	12,091	663	1,032
Denmark	1,165	46	5,867
Egypt	2,901	1,661	1,911
Finland	1,076	36	3,807
France	111,901	4,196	34,000
Germany	227,666	11,900	44,314
Greece	162	17	3,200
Hungary	8,144	432	
India	16,893	1,014	11,122
Indonesia	3,858	1,071	
Italy	54,135	3,450	40,954
Japan	435,610	6,450	66,444
Korea	62,993	2,239	16,615
Malaysia	6,084	1,263	
Mexico	3,348		
Netherlands	7,876	81	10,837
Poland	16,202	893	
Portugal	4,457	176	6,897
Romania	1,836	308	
Russia	7,019	223	654
Slovakia	8,711	1,056	
Slovenia	1,544	40	
South Africa	20,602	277	3,459
Spain	75,104	2,740	23,212
Sweden	24,784	861	5,590
Switzerland	4,252		4,689

Thailand	11655*	443	2,871
Turkey	28,196	502	10,127
UK	58,238	1,590	46,099
USA	425,106	30,416	64,289
Total	1,889,840	84,801	433,160

*Gross production value **gross fixed capital formation

Table H-2 Employment

Argentina	12,166	Korea	246,900
Australia	43,000	Malaysia	47,000
Austria	32,000	Mexico	137,000
Belgium	45,600	Netherlands	24,500
Brazil	289,082	Poland	94,000
Canada	159,000	Portugal	22,800
China	1,605,000	Romania	59,000
Croatia	4,861	Russia	755,000
Czech Rep.	101,500	Serbia	14,454
Denmark	6,300	Slovakia	57,376
Egypt	73,200	Slovenia	7,900
Finland	6,530	South Africa	112,300
France	304,000	Spain	330,000
Germany	773,217	Sweden	140,000
Greece	2,219	Switzerland	15,500
Hungary	40,800	Thailand	182,300
India	270,000	Turkey	230,736
Indonesia	64,000	UK	213,000
Italy	196,000	USA	954,210
Japan	725,000		

Table H-3 2011 Production Statistics

Country	Cars	Commercial vehicles	Total	% change
Argentina	577,233	252,925	830,158	15.9%
Australia	189,503	34,690	224,193	-8.1%
Austria	130,343	22,162	152,505	45.2%
Belgium	560,779	34,305	595,084	7.2%
Brazil	2,534,534	871,616	3,406,150	0.7%
Canada	990,483	1,144,410	2,134,893	3.2%
China	14,485,326	3,933,550	18,418,876	0.8%
Czech Rep.	1,191,968	7,866	1,199,834	11.5%
Egypt	53,072	28,659	81,731	-30.0%
Finland	2,540	0	2,540	-61.9%
France	1,931,030	311,898	2,242,928	0.6%
Germany	5,871,918	439,400	6,311,318	6.9%
Hungary	211,218	2,313	213,531	1.0%
India	3,038,332	888,185	3,926,517	10.4%
Indonesia	561,863	276,085	837,948	19.3%
Iran	1,413,276	235,229	1,648,505	3.1%
Italy	485,606	304,742	790,348	-5.7%
Japan	7,158,525	1,240,129	8,398,654	-12.8%
Malaysia	488,441	45,254	533,695	-6.0%
Mexico	1,657,080	1,022,957	2,680,037	14.4%
Netherlands	40,772	N.A.	40,772	-56.7%
Poland	722,285	108,346	830,631	-4.5%
Portugal	141,779	50,463	192,242	21.1%
Romania	310,243	24,989	335,232	-4.5%
Russia	1,738,163	249,873	1,988,036	41.7%
Serbia	25,494	740	26,234	45.5%
Slovakia	639,763	0	639,763	13.9%
Slovenia	168,955	5,164	174,119	-17.6%
South Africa	312,265	220,280	532,545	12.8%
South Korea	4,221,617	435,477	4,657,094	9.0%
Spain	1,819,453	534,229	2,353,682	-1.4%
Sweden	188,969	N.A.	188,969	-13.0%
Taiwan	288,523	54,773	343,296	13.1%

Thailand	537,987	919,811	1,457,798	-11.4%
Turkey	639,734	549,397	1,189,131	8.6%
Ukraine	97,585	5,492	103,077	24%
UK	1,343,810	120,189	1,463,999	5.1%
USA	2,966,133	5,687,427	8,653,560	11.5%
Uzbekistan	146,300	33,260	179,560	14.5%
Others	367,138	128,009	495,147	2.0%
Total	59,870,838	20,163,824	79,989,155	3.1%

Man-made CO2 Emission

Globally, road transport is responsible for about 16% of man-made CO2 emissions. It is a common misconception that global warming is mainly caused by cars and trucks. It is important to understand that there are other, larger, contributors and ALL sources of CO2 emission must be addressed if the problem is to be solved.

Figure H Man-made CO2 Emission