

**CHINA'S AUTOMOBILE INDUSTRY:
AN UPDATE**

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EAI Background Brief No. 500

Date of Publication: 14 January 2010

Executive Summary

1. China made history in the first quarter of 2009 when its auto sales surpassed that of the U.S.A. to become the largest auto market in the world for the first time. Total auto sales in China are expected to reach over 12 million in 2009.
2. Thanks to China's sound economic fundamentals and stimulus package, the Chinese automobile industry is now the only automobile market to exhibit robust growth. This growth is especially apparent in the production of small and low-emission domestic cars.
3. The year 2008 was a difficult year for the Chinese auto industry. Hit by the global economic crisis, both vehicle sales and production growth figures had been down to single digits, marking the poorest growth rates since 1999.
4. In March 2009, the government released a new development outline for the automobile industry 2009-2011. The central government has been using various stimuli to boost domestic consumption to cope with the sudden plunge in external consumption.
5. This outline maps out comprehensive development schemes, such as industrial upgrading, technological enhancement and promotion of new engines, and addresses other issues such as the lack of economy of scale and production fragmentation.
6. The development of vehicles using renewable energy is a key factor in reducing emissions and achieving an environment-friendly development for China in the future. China is seeking to drive the development of green-energy technology to become the largest producer of green vehicles in the world.
7. The development of green-energy technology is a major challenge for the Chinese automobile industry. The promotion of environment friendly vehicles

has lagged behind that of other advanced nations and the development of new forms of engine-driven vehicle will be a long drawn-out business.

8. Although the state appears to encourage domestic consumption of small-engine, low-emission vehicles and new energies, concrete results are not yet apparent. There is a lack of policy details for achieving this objective.
9. As mergers and acquisitions (M&As) are believed to be the key to achieving the beneficial effects of economies of scale, the formation of auto giants with large production capacity is expected to strengthen the global competitiveness of domestic auto enterprises.
10. The implementation of the M&A strategy is a difficult task. Chinese auto enterprises generally lack international M&A experience. They would do well to apply caution in the consolidation and acquisition of auto enterprises in light of past failures.
11. Local governments are eager to safeguard local jobs and tax revenue, and would be extremely hesitant to support auto sector mergers. In addition, commercial banks have been placing numerous restrictions on the provision of acquisition loans to domestic companies for onshore and outbound M&A activities.

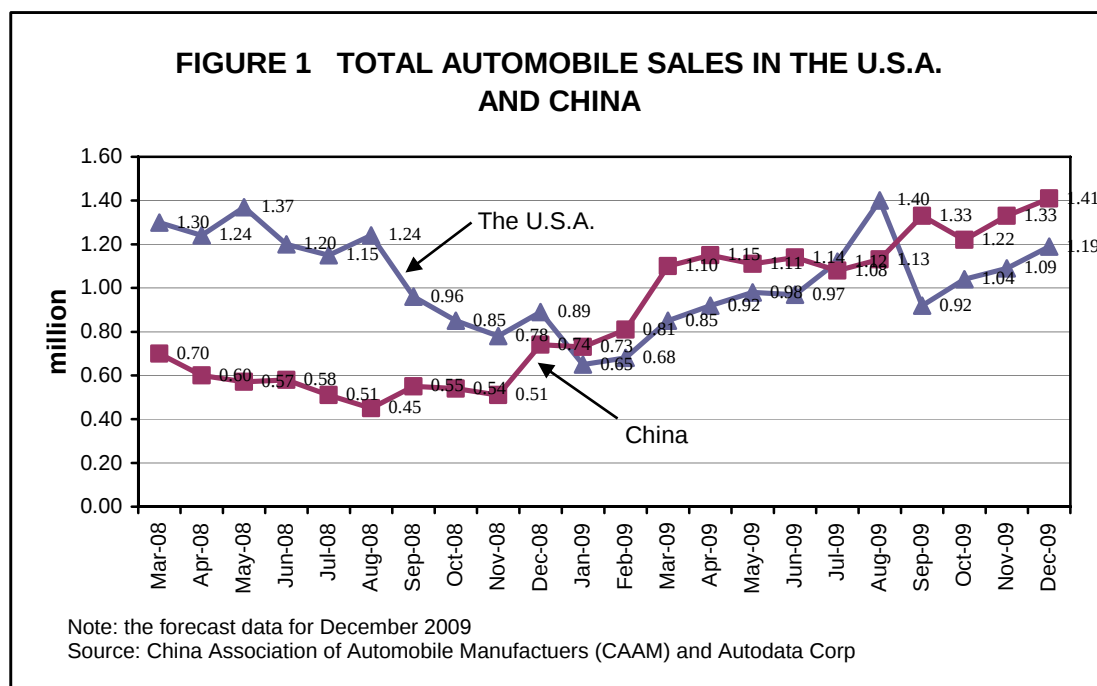
CHINA'S AUTOMOBILE INDUSTRY: AN UPDATE

YU Hong & YANG Mu*

China as the World's Leading Automobile Market

- 1.1 The auto industry worldwide has been badly hit by the global economic crisis. Due to a dip in demand for new vehicles, auto enterprises in North America have, since 2008, been experiencing a considerable decline in sales from the previous double-digit rates.
- 1.2 In contrast, the Chinese automobile industry has continued to develop and has been less affected by the crisis. The severe effects of the credit crisis and economic recession have led to a sharp drop in total auto sales in the U.S.A. to 2.2 million in the first quarter of 2009, compared to 2.65 million in China (see Figure 1). For the first time, China has surpassed the U.S.A. in auto sales to become the world's largest auto market. The total auto sales in China reached 3.96 million in the last quarter of 2009. Total auto sales in China are expected to reach over 13 million in 2009.
- 1.3 Thanks to China's sound economic fundamentals and state-oriented preferential policies (e.g. tax cuts for vehicle purchases and direct government subsidies), the development of the Chinese automobile industry is good and has the potential for further strong development.

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1.4 Many foreign automobile manufacturers like General Motors, Ford and Toyota have pinned their hopes on China to offset their huge losses in the home market.¹ The 13th Shanghai International Automobile Industry Exhibition attracted more than 1,500 international and domestic auto makers and parts manufacturers, making it the biggest auto show ever held in China in terms of the number of participants, size, and number of booths and pavilions.² However, competition in the automobile market is also escalating with the expected launch of 80 new car models in the Chinese market in 2009.³

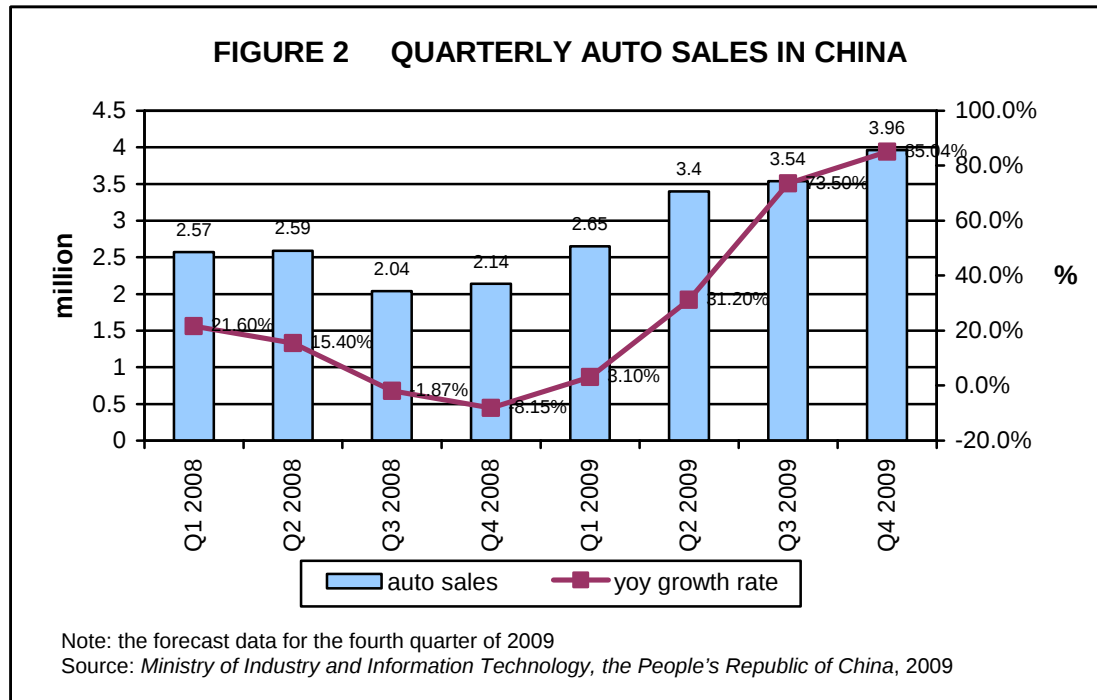
1.5 Government incentives have effectively stimulated domestic vehicle consumption. Auto sales in China decreased to 2.04 million in the third quarter of 2008 from 2.57 million in the first quarter of 2008. Due to the government's stimulus package and strong domestic demand, the downward trend of

¹ "China may be the bailout global car industry seeks", *The Straits Times*, p. A16, April 16, 2009.

² "China drives sales for global majors", *China Daily*, online edition: http://www.chinadaily.com.cn/bizchina/2009-04/21/content_7697905.htm

³ "China car sales", *Financial Times*, online edition: <http://www.ftchinese.com/story.php?storyid=001027498&lang=en>

automobile sales has been reversed since the first quarter of 2009. Total auto sales rose by 73.5% to 3.54 million in the third quarter of 2009 from the corresponding figure in the previous year (see Figure 2).



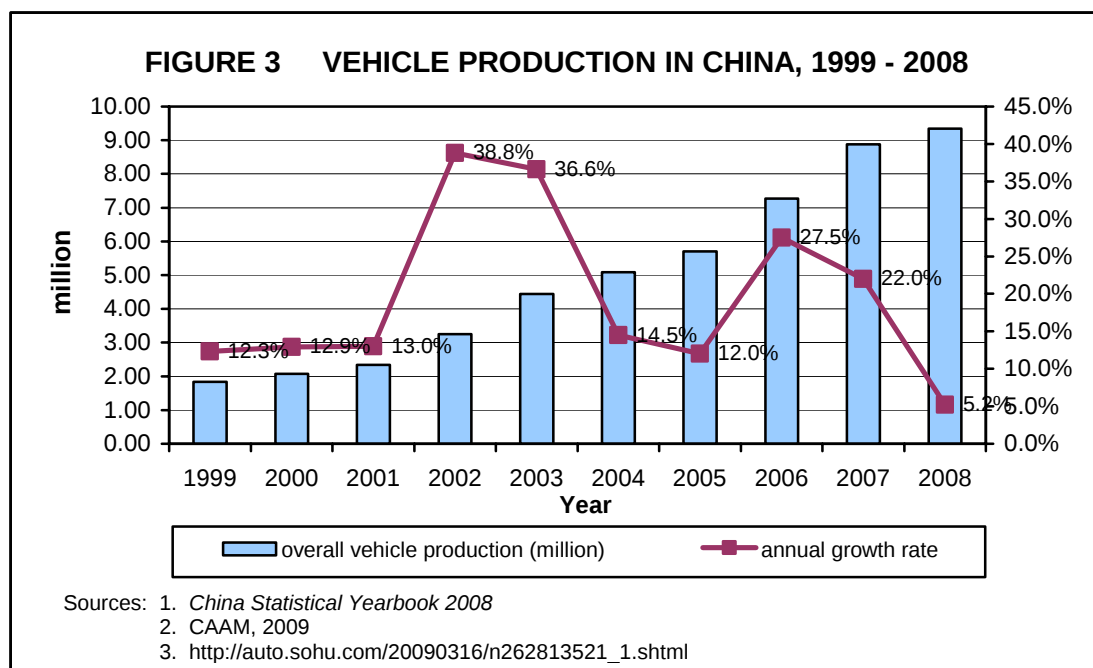
1.6 American dominance of the world's automobile industry has weakened considerably due to the global economic crisis. However, for the Chinese auto makers, the crisis has turned out to be an opportunity to strengthen their global competitive capacity. Zhejiang-based Geely Holding Group Co., (Geely) is a shining example of this phenomenon. Its rapid growth and ambitious development plans are indicators of the rise of Chinese auto firms, and the potential of a power shift in the world auto industry towards China in the future.⁴ Backed by the central government, the Chinese automobile sector is expected to play a more important role in the world auto industry in the future.

⁴ "Chinese upstart Geely expands to take on Detroit", *The Wall Street Journal*, pp. 18-19, 16 July 2009

Impacts of the Global Recession on the Chinese Automobile Industry

- 2.1 The year 2008 was a difficult year for the Chinese auto industry after it was hit by the global economic crisis. In 2008, total sales of domestically manufactured vehicles were 9.38 million. Overall sales growth was down to 6.7% from 21.8% in 2007. The overall domestic vehicle production was 9.34 million in 2008 while the annual growth rate of domestic vehicle production fell to only 5.2% from 22% in 2007 (see Figure 3).⁵ Both vehicle sales and production growth figures were down to single digits, registering the poorest growth rates since 1999.
- 2.2 The weakening consumer confidence triggered by the crisis has caused a rapid decrease in global vehicle consumption. Consequently, official statistics have been recording a substantial slump in Chinese auto exports since 2008. During the first two quarters of the year, growth rates rose to 79.3% and 44.9%. However, the corresponding figures were sharply down to 2.6% and -38.8% in the last two quarters of 2008.
- 2.3 Against the backdrop of the global crisis, the government issued a new development outline for the automobile industry which forms an important part of the support plans for 10 key industries. Through the Outline, the central government has been using various stimuli to boost domestic consumption and speed up the development of alternative fuel vehicles to cope with the sudden plunge in external consumption and foreign investment.

⁵ “China to consider steel, vehicle support programs”, <http://English.people.com.cn/90001/90776/90884/6573360.html>



Government Stimulus Programmes

- 3.1 In March 2009, the State Council of China released a new development outline for the automobile industry 2009-2011 (referred to as the Outline). This Outline maps out comprehensive development schemes, such as industrial upgrading, technological enhancement and promotion of new engines, and at the same time addresses other issues such as the lack of economy of scale and production fragmentation.
- 3.2 Apart from the specific development goals identified in Appendix 1, the Outline also intends to make significant progress in mergers and acquisitions (M&A) of auto enterprises. Regional clustering of vehicle production is believed to be the major development goal.
- 3.3 In response to the economic crisis in the short run and to cope with the existing problems of production structure in the long run, the Outline unveiled three main objectives. Firstly, production would be diverted from low-end vehicle assembly to high-end manufacturing and products design. This will

hopefully enable the auto enterprises to compete more effectively on a global scale.

- 3.4 The reliance on low-end and labour-intensive manufacturing using imported technology is no longer sustainable, and development of the auto industry requires production restructuring and technological upgrading. According to the Outline, passenger vehicles manufactured with domestically independent brands will account for more than 40% of the total auto market, making up 10% (around one million) of overall export production and sales in 2011.
- 3.5 Secondly, the industry is expected to place more emphasis on research in energy-saving and environmentally friendly vehicles. The development of renewable energy vehicles is a key factor in reducing emissions, protecting the environment, and achieving environmentally friendly development for China in the future. China is seeking to drive the development of green-energy technology and become the largest producer of alternative fuel vehicles in the world. The ambitious state agenda on green-energy vehicles is analyzed in Appendix 2.
- 3.6 However, the development of green-energy technology and alternative energy vehicles is a difficult task for the Chinese automobile industry. The promotion of environmentally friendly vehicles has lagged behind that of other advanced nations while the development of new forms of engine-driven vehicles will be a drawn-out business.
- 3.7 The Chinese leaders are overwhelmingly optimistic regarding the future development of alternative energy vehicles. Although the state appears to be encouraging domestic consumption of small-engine, low emission vehicles and new energies, concrete results towards this end have yet to become apparent. There is a lack of policy details for achieving this objective.
- 3.8 Thirdly, boosting domestic vehicle demand is seen as a key means to stimulating economic growth. The government is expected to evaluate tax and

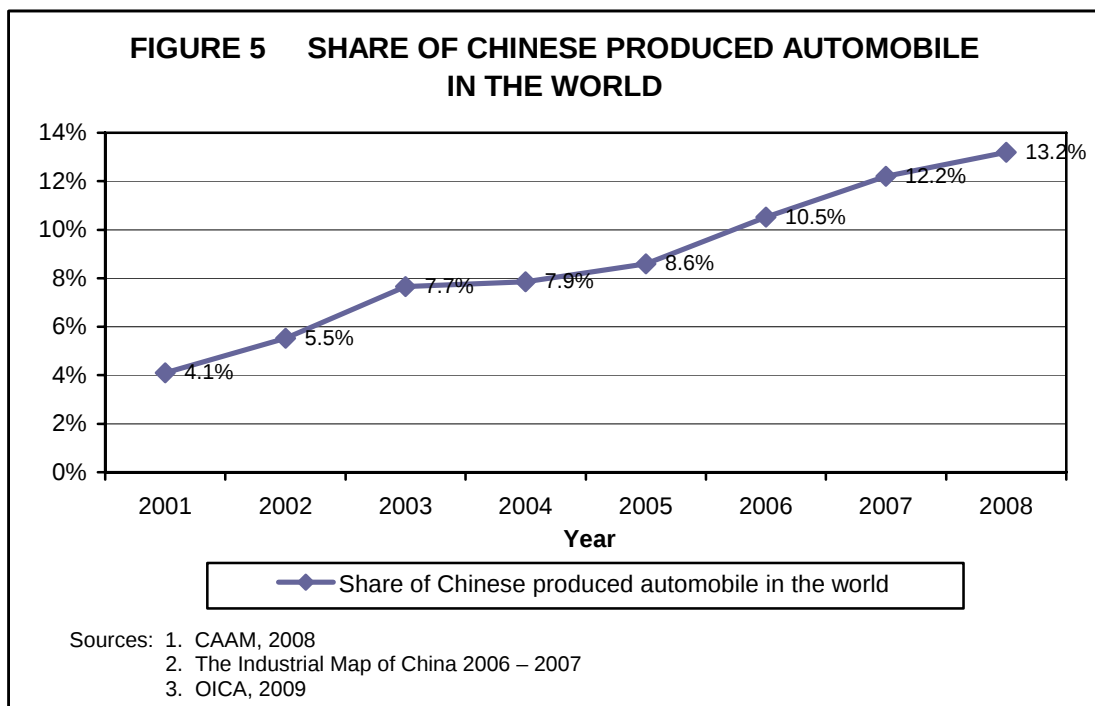
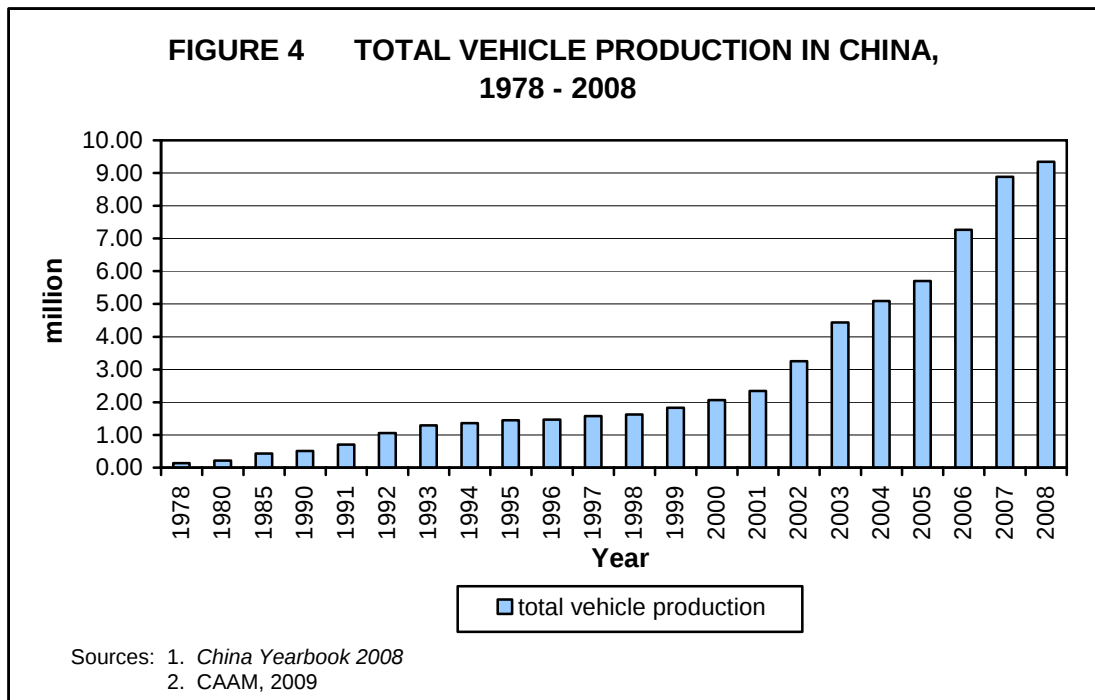
financial stimulation policies in an effort to give consumers the confidence to spend more on the purchase of new vehicles. The regulations on car purchase restrictions are expected to be abolished.

- 3.9 As unveiled in the Outline, the government is expected to implement the ‘sell automobiles to peasants’ policy. By providing one-off allowances on the replacement of three-wheeled vehicles and low-speed trucks, the authorities hope to encourage farmers to purchase new light minivans. However, the potential of farmers rescuing the auto industry is highly uncertain. In contrast to the people living in the cities, the financial means available to the farmers are very limited as banks and other financial institutions are more reluctant to offer car purchasing loans to farmers.

Rapid Development of the Chinese Automobile Industry

- 4.1 The fast developing auto sector has been one of the mainstays of the Chinese economy. It achieved an annual growth rate of 15 percent between 1978 and 2008. Overall vehicle production increased to 9.34 million in 2008 (see Figure 4), representing a ratio of 13.2% of world auto production in 2008, an increase from just 4.1% in 2001 (see Figure 5). The auto sector has strong linkage with more than 100 upstream and downstream industries, including steel, plastic, aluminum, glass and rubber. Their combined industrial output could amount to around 4 trillion *yuan*.⁶

⁶ ‘2008 Chinese auto market: the slowest growth year for almost 10 years’, 12 January 2009, *Economic Reference Newspaper*.



4.2 Worldwide, the Chinese automobile industry is now the only automobile market to exhibit robust growth due to a number of factors. Firstly, Chinese economic fundamentals remain sound. China has been achieving a

remarkable annual GDP growth of 10% over the last two decades. The potential demand is still huge. The new rich and middle classes are willing to purchase vehicles as they are largely reflective of high social and economic status.

- 4.3 The American experience reflects that, with the rapid increase of average household income, China is moving toward a period of car consumption boom in the coming years. China's average family income is approaching the income levels of America in the 1950s which represented the golden period of vehicle consumption boom.⁷ By 2008, the average urban family income in China had risen to around 24,302 *yuan* (\$3522) from 16,159 *yuan* (\$1973) in 2005.⁸
- 4.4 Secondly, the government has effectively stimulated domestic vehicle demand by implementing various policies to expand vehicle production, boost domestic consumption and speed up the development of alternative fuel vehicles. Government stimulus packages, such as lower purchase tax on small-engine cars and direct subsidies for peasants to purchase minivans and light trucks, have boosted consumers' spending on new vehicles.
- 4.5 Thirdly, the fast expansion of the highway system in China has also helped to boost domestic vehicle consumption. The Chinese government has acknowledged that the transportation infrastructure is an important precondition for the development of its automobile industry and been working hard on highway construction over the last decade. In 2008, the total length

⁷ The U.S.A. experienced a dramatic boom of vehicle sales during the 1950s and 1960s. Compared to the corresponding figure of 4.8 million in the 1940s, the total number of domestic car sales jumped to 7.2 million and 11.1 million respectively in the 1950s and 1960s. The U.S.A.'s average household income was about \$4,237 in 1950. (Sources: U.S.A. Bureau of Labour Statistics; Consumer Expenditure Survey; and U.S.A. Census Bureau, Statistical Abstract of the United States)

⁸ National Bureau of Statistics, *People's Republic of China*, 2009

of operational highways reached 60,300 kilometres, forming a preliminary domestic highway network linking the whole nation (see Appendix 3).⁹

- 4.6 This growth within the auto sector is especially apparent in the production of small and low-emission domestic cars. Private carmakers Chery Automobile Co and Zhejiang Geely Holding Group Co are the two outstanding performers. Goldman Sachs-managed private equity fund is expected to invest \$250 million in Geely.¹⁰ This investment would increase stakes for Geely in the bidding for Ford's Motor Co.'s Volvo unit and strengthening its global competitive capacity. For an analysis of the rapid development of small cars in China please refer to Appendixes 4 and 5.

M&A: A Key Development Strategy

- 5.1 One of the important characteristics of the Chinese automobile industry is regional production fragmentation. There are more than 120 vehicle makers, which are almost equal to the combined figures of all auto enterprises in Europe, Japan and the U.S.A.¹¹ Most of these firms suffer from weak competitiveness and low production capacity.
- 5.2 Shanghai Automotive Industry Corporation (Group) (SAIC), First Automobile Works Co., Ltd (FAW) and Dongfeng Motor Corporation (DFM) are the top three vehicle producers. However, they shared less than 50% of overall auto sales in 2008. In contrast, the market share of the five largest U.S. automobile firms (General Motors, Ford, Chrysler, Toyota

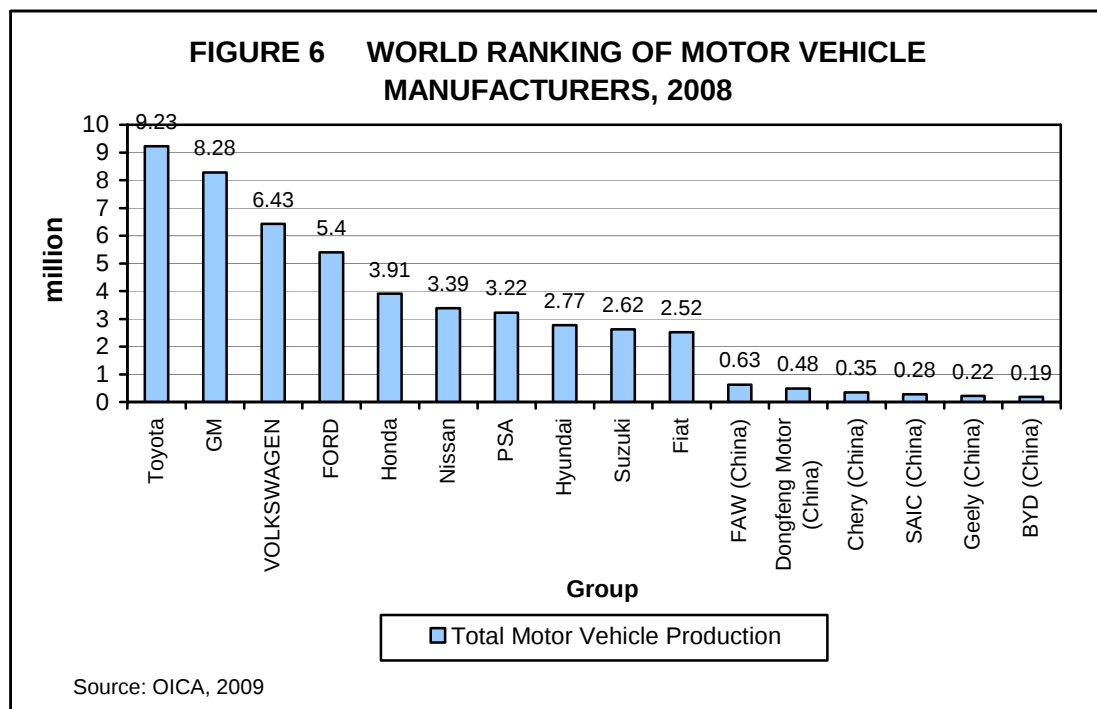
⁹ "From a backward position, China becomes the world's leading automobile market in terms of production and sales", *Yazhou Zhoukan*, 27, 12 Jul 2009.

¹⁰ "Goldman invests \$250 million in Geely auto's expansion", *The Wall Street Journal*, online edition, <http://online.wsj.com/article/SB125336135937225281.html>

¹¹ Yang Mu and Teng Siow Song. (2006) China's Automobile Industry Post-WTO: Surging Growth, *EAI Background Brief No. 293*, National University of Singapore, Singapore.

Motor Sales U.S.A. Inc. and American Honda Motor Co Inc.) accounted for more than 76% of total automobile sales in 2008.¹²

- 5.3 FAW, China's largest auto maker, manufactured only 0.63 million vehicles and ranked only No. 11 in the world in 2008. In contrast, total vehicle production of Toyota, the top vehicle manufacturer, was more than 14 times that of the figure for FAW, at 9.23 million vehicles in 2008 (see Figure 6).



- 5.4 The auto sector is an industry that enjoys economies of scale; the strong effects of economic externalities generated from scale economies and industrial agglomeration can substantially reduce the production cost per vehicle. Moreover, regional production agglomeration could benefit auto makers through the spillover of knowledge.¹³

¹² "Sales and share of total market by manufacturer", *The Wall Street Journal*, online edition, http://online.wsj.com/mdc/public/page/2_3022-autosales.html#autosalesD

¹³ Porter M. E., (1998) *the Competitive Advantage of Nations*, MacMillan Press Ltd, London.

- 5.5 Therefore, rationalization of the highly fragmented Chinese automobile industry in the form of production clustering is badly needed. As M&As are believed to be the key to achieving the beneficial effects of economies of scale, over the next three years, the formation of auto giants with large production capacity is expected to strengthen the global competitiveness of domestic auto enterprises against their Western counterparts.
- 5.6 Sichuan Tengzhong Heavy Industries Machinery Co. (Tengzhong) signed a tentative agreement with the bankrupt General Motors (GM) to acquire its famous Hummer brand on 3 June 2009 (see Appendix 6). SAIC and GM formed a US\$ 100 million joint venture in December 2009. This new venture would manufacture and sell vehicles in India, which were developed by Shanghai GM and SAIC-GM Wuling Automobile Co.¹⁴ This joint venture is expected to achieve annual sales of 225,000 vehicles in India by 2012.¹⁵
- 5.7 These two events represent the latest effort by the Chinese automobile industry to adopt an outward M&A strategy to expand production capacity and strengthen global competitiveness. The auto makers may also intend to strengthen their domestic position via overseas M&A activities. Under the current global economic crisis, the Chinese car makers are seeking opportunities to enter other emerging markets.

The State-dominated M&A: Challenges Faced by the Automobile Industry

- 6.1 The state has played a key role in M&A activities, as evidenced by the FAW acquisition of Tianjin Auto Corporation in 2003 and the merger of Nanjing Automobile (Group) Corp (NAC) with the SAIC in 2007.¹⁶ This state-

¹⁴ “GM teams up with SAIC for \$100m joint venture”, *China Daily*, http://www.chinadaily.com.cn/china/2009-12/05/content_9123704.htm

¹⁵ “SAIC and GM reshape partnership”, *The Wall Street Journal*, December 7, 2009, page 25

¹⁶ “The merger of Changfeng Auto Group by Guangzhou Automobile Industry Group Co., Ltd: the new charter of free merger for the Chinese automobile industry”, *Sina News*, <http://auto.sina.com.cn/news/2009-05-22/0911493777.shtml>

dominated style of M&A has been hampered by high acquisition costs, difficulties in restructuring internal management teams and overall low competitiveness.

- 6.2 Although it is believed that M&A will strengthen the automobile firms' competitiveness on a global scale, implementation of this strategy is a difficult task for the Chinese automobile firms. For example, the total transactional amount of China's cross-border M&A dropped by 30% in 2008, compared to the figure in 2007.¹⁷ They faced at least three serious challenges.
- 6.3 Firstly, the Chinese auto enterprises generally lack international M&A experience. They would do well to apply caution in the consolidation and acquisition of auto enterprises in light of past failures. The acquisition case of Ssangyong Motor has taught the Chinese auto companies a hard lesson; without understanding different business environments and labour cultures, hasty M&As are doomed to fail.¹⁸
- 6.4 The SAIC has suffered huge losses brought by expansion. More than half of the acquisition investment made by SAIC was lost with the shrinking market value of Ssangyong Motors. The total sales profit for SAIC decreased by 50% in 2008 in comparison with the corresponding figure in 2007.¹⁹
- 6.5 Secondly, in their M&A attempts, Chinese auto makers have encountered resistance from local authorities; a big proportion of local tax revenue is contributed by auto firms which employ a large number of workers.²⁰ Due to

¹⁷ "China's cross-border M&A dropped by 30% in 2008", *China Daily*, online edition: http://www.chinadaily.com.cn/bizchina/2009-01/19/content_7410335.htm

¹⁸ 'Expansion spells difficulties for SAIC Group', *China Business Feature*, http://www.cbfeature.com/chinese_company/news/expansion_spells_difficulties_for_saic_group

¹⁹ 'Will SAIC walk out of Ssangyong's shadow?' *Gasgoo*, <http://autonews.gasgoo.com/auto-news/1009323/Will-SAIC-walk-out-of-Ssangyong-shadow.html>

²⁰ 'Automakers may restructure soon', *China Daily*, online edition: http://www.chinadaily.com.cn/bw/2009-03/16/content_7580742.htm

self-interest, local governments are more eager to safeguard local jobs and tax revenue than to support auto sector mergers.

- 6.6 The underdevelopment of the Chinese financial market has undermined the ability of many small and medium-sized automobile companies in raising funds to effect such M&A activities (e.g. leverage buyout).
- 6.7 At the same time, the government's policy is biased towards large state-owned companies, which can obtain preferential funds from the policy banks.²¹ Due to these government policies and regulations, commercial banks have been placing numerous restrictions (e.g. registered capital requirement) on the provision of acquisition loans to domestic companies for onshore and outbound M&A activities.
- 6.8 China has now clearly overtaken the U.S. in becoming the largest automobile producer and consumer in the world. And it is likely to continue to take the lead for the foreseeable future. Looking to the future development of the automobile industry, volume of production and economies of scale will no longer be decisive factors. The key lies in the new technologies for renewable energy and fuel efficiency, as well as design and brand-names. Whilst Japan has made impressive progress in these fields, China's automobile sector has been slow to respond.

²¹ "Experts: Overseas M&A deals may slow", *China Daily*, online edition, http://www.chinadaily.com.cn/bizchina/2009-04/28/content_7722693.htm

APPENDIX 1 HIGHLIGHTS OF THE NEW DEVELOPMENT OUTLINE FOR THE AUTOMOBILE INDUSTRY

Summary	
Production Expansion	
1	Targets have been set at 10% annual growth in vehicle production and sales for the next 3 years, and in the manufacturing and sale of 10 million cars in 2009.
2	By 2011, passenger vehicles with engine capacity of below 1.5 liters are expected to account for 40% of market share, with those below 1.0 liters taking 15% of the market.
Mergers and Acquisitions	
3	Two to three large auto giants with production and sales capacities reaching 2 million, and four to five smaller auto giants with capacities reaching 1 million are expected to be developed by 2011.
Domestic Consumption	
4	The purchase tax for vehicles with engine capacities below 1.6 liters would be reduced to 5% from 10% between 20 January and 31 December 2009.
5	The government is expected to allocate 5 billion <i>yuan</i> in one-off allowances to farmers who replace their three-wheeled vehicles and low-speed trucks with min-vans or buy new mini-vans with engine capacities below 1.3 liters.
6	A discount of 10% will be given to farmers who buy a mini-van or light truck between 1 March and 31 December 2009, with a ceiling subsidy of 5,000 <i>yuan</i> .
7	Farmers who scrap their old three-wheeled vehicles or low-speed trucks will be able to enjoy 2,000 and 3,000 <i>yuan</i> subsidies respectively during the same period.
Technological Upgrading	
8	The state aims to spend 10 billion <i>yuan</i> on special investments to support auto enterprises in technological upgrading: such as developing new car engines using alternative energies and recycling battery sets.
9	It is envisaged that vehicles manufactured by domestically independent companies will account for more than 40% of the total auto market; these vehicles will make up 10% of overall export production and sales.
Development of Alternative Energy Vehicle	
10	The production and sales of electronic vehicles are expected to achieve scale economy status by 2011. The combination of hybrid and pure electricity-driven vehicles is to achieve a production capacity of half a million by 2011 and the sales of passenger cars with new engines have been set at 5% of total passenger vehicles sales.

Source: National Development and Reform Commission, *the People's Republic of China*, 2009

APPENDIX 2

Ambitious State Plans on Green-Energy Vehicles

The Chinese central government has realized that long-term competitiveness and sustainable development for the automobile industry lie in the promotion of green-energy technology. Wan Gang, Minister for Science and Technology, who was a former technical manager in the Production and Planning Department of the German Audi Corporation, has been influential in promoting green-energy technology and development of alternative fuel vehicles in China. On various occasions, he has reiterated in speeches that the central government will speed up the development of alternative energy vehicles to cope with the global financial crisis and enhance long-term industrial competitiveness.

As an important part of the central government's ambition to develop green-energy technology and expand the production of alternative energy vehicles 60,000 alternative fuel cars on the road and energy-saving and alternative energy vehicles 10% of total annual auto output by 2012. Various means of financial support, from tax benefits to direct subsidies, are expected to be offered to carmakers engaging in the production of alternative fuel vehicles, and to domestic consumers purchasing green-energy cars.

In new efforts to support the development of green-energy vehicles, the Ministry of Finance and Ministry of Science and Technology have jointly launched a trial program and given subsidies to thirteen Chinese municipalities to purchase hybrid and electric vehicles, for public transportation services (e.g. bus, taxi and postal service cars). These 13 trial municipalities include Beijing, Shanghai, Chongqing, Changchun, Dalian, Hangzhou, Jinan, Wuhan, Shenzhen, Hefei, Changsha, Kunming, and Nanchang.

The local governments have also been adopting various strategies to promote the development of new energy vehicles by direct subsidies for green-energy vehicles purchases. For example, between 2010 and 2011, Shanghai's authority is expected to provide up to 20 percent subsidies for purchases of new vehicles which have energy savings of 15% and above.

However, the Chinese leaders are overwhelmingly optimistic regarding the future development of alternative energy vehicles. Although the state has been encouraging domestic consumption of small-engine, low emission vehicles and new energies, concrete results have yet to become apparent.

The promotion of new energy-fuelled vehicles is costly while average retail prices are still too expensive. Only when environmentally friendly vehicles and their associated alternative energies become affordable for the ordinary people will domestic consumption shift from gas-guzzling to energy-saving and environmentally friendly cars. Moreover, for the purely electricity-driven and hybrid vehicles, there is a lack of working proposals to address the issue of supporting infrastructure (e.g. electricity-recharging network). For many municipalities, building electricity-charging ports for recharging electric and hybrid vehicles will create financial difficulties; as a result, meeting operational needs will take many years.

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3. "Hopes for Chinese rescue reined in", *Financial Times*, p. 18, April 21, 2009.

APPENDIX 3

China's Current Highway Network

Nine Vertical Lines

1. Hegang – Dalian 2. Shenyang – Haikou 3. Changchun – Shenzhen 4. Jinan – Guangzhou 5. Daqing – Guangzhou 6. Erlianhaote – Guangzhou 7. Baotou – Maoming 8. Lanzhou – Haikou 9. Chongqing – Kunming

Eighteen Horizontal Lines

1. Suifenhe – Manzhouli 2. Hunchun – Wulanhaote 3. Dandong – Xilinhaote 4. Rongcheng – Wuhai 5. Qingdao – Yinchuan 6. Qingdao – Lanzhou 7. Lianyungang – Huoerguosi 8. Nanjing – Luoyang 9. Shanghai – Xi'an 10. Shanghai – Chengdu 11. Shanghai – Chongqing 12. Hangzhou – Ruili 13. Shanghai – Kunming 14. Fuzhou – Yinchuan 15. Quanzhou – Nanning 16. Xiamen – Chengdu 17. Shantou – Kunming 18. Guangzhou – Kunming

Seven Radial Lines

1. Beijing – Shanghai 2. Beijing – Fuzhou 3. Beijing – Hong Kong and Macau 4. Beijing – Kunming 5. Beijing – Lassa 6. Beijing – Urumqi 7. Beijing – Haierbin

Source:

1. "From a backward position, China becomes the World's leading automobile market in terms of production and sales", *Yazhou Zhoukan*, 27, 12 Jul 2009.

APPENDIX 4

The Development of Small-Engine Cars in China

The rapid growth of auto sales in China has been largely driven by small-engine and low-emission domestic cars. Chinese consumers have been taking advantage of government programmes designed to increase spending on small-engine vehicles, which include measures such as lower purchase tax on small-engine cars below 1.6 liters and a 5-billion *yuan* direct subsidy for peasants in purchasing minivans and light trucks. This has had the effect of dramatically stimulating production and sales domestic small-engine car producers.

Private carmakers Chery Automobile Co, Brilliance Auto and Zhejiang Geely Holding Group Co have performed particularly well. In January and February 2009, Chery, known for its popular QQ model, reported sales growth of 25%. It has become the fourth largest vehicle manufacturer in China. In January 2009, Geely recorded sales of 28,502 vehicles up by 14.5% on the corresponding figure in the previous January. Brilliance Auto, which has been achieving rapid growth since the company's establishment 13 years ago, aims to become the No.1 vehicle maker in China by 2015.

However, fierce industrial competition among domestic small-engine carmakers raises concerns over the future development of the automobile industry. In order to increase market share, these car producers in prices. Even though sales jumped substantially, the negative price competition has caused many small-engine carmakers to experience a decrease in net profits or even face financial troubles. For example, although the auto sales growth of Chongqing Changan Automobile Co. was 22%, its profits dropped by 89% in the first quarter of 2009 compared to that in the previous year.

Secondly, under the negative impacts of the ongoing global economic downturn, future economic growth and employment in China is hard to forecast. Facing uncertain economic situations, the Chinese consumers would prefer to save more and exercise caution over automobile purchases in the future. According to a report by the People's Bank of China, the central bank of China, 47% of urban residents would like to increase their savings in the second quarter registering an increase of 9.5% on the first quarter of 2009. Only 15.1% of urban residents intend to increase spending during the same period causing a fall of 14.6%. Also, the rising vehicle consumption is mainly driven by the government stimulus policies. It would not be sustainable in the long-term prospect. These factors will inevitably have an effect on the recent strong growth in domestic consumption of the small-engine automobile sector and the future continuation of such rapid development should not be taken for granted.

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3. 'A Lean, Green Detroit', *Newsweek*, pp. 22-25, 4 May, 2009
4. 'Auto firms headed for tougher times', *China Daily*, p. 15, 6 May 2009
5. 'Carmakers vie for China sales', *China Daily*, p. 9, 20-26 April 2009
6. 'Consumer resilience', *China Daily*, p. 4, 15 June 2009

APPENDIX 5

Development of Geely, the Chinese Upstart

The dominance of the world's automobile industry by American companies has weakened considerably due to the global economic crisis. For Chinese auto makers, the crisis has turned out to be an opportunity to strengthen their global competitive capacity. Zhejiang-based Geely Holding Group Co., (Geely) is a shining example of this phenomenon. Its rapid growth and ambitious development plans does demonstrate the rise of privately owned Chinese auto firms, more importantly, the potential for a power shift in the world's auto industry towards China in the future. Frank Zhao, president of Geely's research and development department, comments that "GM is big but moving down. We are small but moving up."

Annual sales of Geely vehicles reached 221,900 in 2008, a ten-fold increase from around 21,000 in 2001. Considering that Geely only began to sell vehicles in 2001, this is an impressive achievement. Over the last few years, Geely has developed a long-term strategy to strengthen global competitiveness and become a powerful international competitor. It has been investing heavily on research and development (R&D) (expenditure on product development accounts for 8% or so of its total revenue) and working hard to build advanced manufacturing capabilities. Geely is also recruiting highly talented personnel with modern management, engineering and technological research skills.

In contrast to many Chinese firms which are manufacturing and selling vehicles via joint ventures with foreign companies, Geely is one of the few domestic auto makers relying on its own efforts to produce independently owned car brands. Also, it is planning to diversify into the production of more luxurious models, such as sport-utility vehicles, which are currently dominated by global leading auto makers in the West. Geely is expected to export its own models to the highly competitive European and American markets over the next three years.

Li Shufu, Geely's Chairman, believes that Geely can develop faster via mergers and acquisitions of established foreign vehicle-producing companies. Since January 2008, the firm has established itself as the front-runner in the bidding for Ford's Motor Co.'s Volvo unit. If the anticipated US\$2 billion acquisition deal is successfully completed, it is expected to shape the future of the world's auto industry.

However, problems such as a lack of international management skills and the difficulties in restructuring internal management teams and blending different cultures into a united whole could be the roadblocks impeding further development of Geely and other emerging privately owned auto makers in China. Nevertheless, the interior part for Buick car selling in the American market designed by Geely's technical centre in Shanghai shows that China is making progress in obtaining high-tech product development and high-level design capabilities. The plentiful and consistent supply of high-quality engineering graduates from top universities in China has further enhanced the potential of R&D capability for Geely. Backed by the Chinese government's supportive policies and direct subsidies for high-tech vehicle research, China is soon expected to become the most influential low-cost engineering base within the world's automobile sector.

Reference: "Chinese upstart Geely expands to take on Detroit", *The Wall Street Journal*, pp. 18-19, 16 July 2009

APPENDIX 6

Acquisition of GM's Hummer

Sichuan Tengzhong Heavy Industries Machinery Co. (Tengzhong), a little-known Chinese company specializing in manufacturing special-use vehicles and construction equipment, signed a tentative agreement with the bankrupt General Motors to acquire its famous Hummer brand on 3 June 2009. The details of this financial deal have not yet been disclosed. Under the current global economic crisis, it represents the latest effort by the Chinese automobile industry to M&A strategy to expand production capacity and strengthen global competitiveness.

Unlike high-profile state-dominated M&As, the deal for GM's Hummer was made by a privately owned company. Tengzhong is expected to use this acquisition as a springboard to enter the global automobile market. It has developed an ambitious plan to invest heavily in research and development and make Hummer a more energy efficient vehicle in the future. However, it is a difficult task for Tengzhong. Chinese carmakers, in general, lack international experience and expertise in running a foreign brand and managing production networks, let alone a company which has never made passenger vehicles before.

The Chinese government has emphasized the promotion of small-engine, environmentally friendly vehicles in China therefore, the acquisition of GM's gas-guzzling and high-emission Hummer brand seems to contradict the state development policy. However, the Chinese government is very unlikely to block this deal, as Tengzhong is not controlled by the government. It is believed that Tengzhong will finance the acquisition deal with its own capital.

References:

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