

Chapter 2

China's cars and parts: development of an industry and strategic focus on Europe

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1. Introduction

Initially, Chinese investments – across all industries in Europe – especially acquisitions of European companies were discussed in a relatively negative way. Politicians, trade unionists and workers, as well as industry representatives feared the sell-off and the subsequent rapid drainage of industrial capabilities – both manufacturing and R&D expertise – and with this a loss of jobs. However, with time, coverage of Chinese investments has changed due to good experiences with the new investors, as well as the sheer number of investments.

Europe saw the first major wave of Chinese investments right after the financial crisis in 2008–2009 driven by the low share prices of European companies and general economic decline. However, Chinese investments worldwide as well as in Europe have not declined since, but have been growing and their strategic character strengthening. Chinese investors acquiring European companies are neither new nor exceptional anymore and acquired companies have already gained some experience with Chinese investors.

The European automotive industry remains one of the most important investment targets for Chinese companies. As in Europe the automotive industry in China is one of the major pillars of its industry and its recent industrial upgrading dynamics. Many of China's central industrial policy strategies – Sino-foreign joint ventures and trading market for technologies – have been established with the aim of developing an indigenous car industry with Chinese car OEMs. These instruments have also been transferred to other industries, such as telecommunications equipment. However, while the development of car manufacturers were at the centre of China's industrial policies local automotive suppliers were mostly left out. This often resulted in the underdevelopment of supplier networks as the technological capabilities of Chinese suppliers lag far behind Chinese car OEMs.

In recent years, the internationalisation of automotive companies, of which the majority are state-owned and local state (province/municipal city)-owned – as well as of many other industries – has been a major goal of China's central government's 'going abroad' strategy, aimed at foreign markets, as well as knowledge sources that allow for technology acquisition. Chinese outward foreign direct investment (outward FDI) has both grown and changed considerably in the past decade. China became the third biggest outward FDI source worldwide in 2015, after the United States and Japan, while the investments of Chinese companies have become increasingly strategic (UNCTAD, WIR 2016).

Europe's automotive sector has been the most active industry as both recipient and source of FDI in recent years. While Chinese investments are growing in number their volume is mostly smaller, as they often focus on smaller automotive suppliers. Since 2005, 51 Chinese investments have been documented in the European automotive sector, driven by the need for technology acquisition. To date, Chinese investments in the European automotive sector seem to have had positive effects on European operations as investment programmes were set up and labour relations did not deteriorate. However, one has to bear in mind that recent years have been characterised by dynamic growth in the automotive sector (Luo and Pawlicki 2016). However, only the next crisis will show how Chinese investors act during difficult times.

This chapter describes the development of the Chinese automotive industry, looking at its current overall structure and historical development with particular attention to government policies. The second part of the chapter looks at China's outward FDI in general before moving on to a detailed analysis of China's investments in Europe's automotive industry.

2. China's automotive industry

China has become both the world's largest producer of and market for motor vehicles since 2009 (CAAM 2016: 7). The automotive industry has been one of the major pillars of the industrialisation driven by China's central government since the 1950s. Thus the development of the automotive industry has been characterised by both central and local state-owned enterprises and very strong government ties. Both the development of manufacturing capabilities and technology acquisition, through Sino-foreign joint ventures, have been of central importance.

China's automotive industry has a rather dispersed structure with a clear but relatively fluid hierarchy. For decades, the top three strategic players have been FAW (First Automotive Group Corporation), Dongfeng and SAIC (Shanghai Automotive Industry Corporation). By 2009, Changan Automobile had made it into the top four. However, after a series of mergers and restructurings, the relative strength among the top four has changed, while a few local automotive groups, such as BAIC (Beijing Automotive Industry Corporation) have moved upwards in terms of market share. The rapid growth of capacities and market shares of China's automotive industry as a whole and especially those of its five major groups are closely connected to joint ventures and foreign investments.

In its strategy for developing a modern automotive industry in China the Chinese government has focused heavily on car makers and neglected automotive suppliers. Most Chinese automotive suppliers are highly dependent on the domestic market and have no stable position in the supply chains of global car OEMs. Many car makers in China purchase parts and components from multinational suppliers, as local suppliers lack the required technological capabilities.

In recent years China's domestic market has become the most important outlet for both Chinese and foreign car makers. This development has been heavily supported by government policies. The EU crisis in the aftermath of the worldwide crisis of 2008 forced European car makers to develop offshore markets dynamically. China with its huge size and growth rates has provided possibilities for survival. China's central government has also been actively encouraging the internationalisation of China's automotive industry with regard to both the establishment of offshore markets and manufacturing operations as well as the development of R&D centres outside China for direct technology acquisition. Providing backing for investments and the acquisition of foreign companies is the latest step in this development.

The advent of the electronic vehicle era has opened opportunities for China's automotive industry that have been supported by generous government policies since early on. Thus, China is playing a leading role in some of the most central technologies of this new industry, for example, battery technology.

The prevalence of large state-owned groups and their joint ventures, as well as their central role in China's industrialisation have had positive effects on labour relations in the automotive industries. Trade unions and collective agreements exist at almost all car OEMs in China, with an organisation rate of nearly 99 per cent. Recently, the All-China Federation of Trade Unions was relatively successful in its effort to organise lower-tier auto parts suppliers. However, the role of unions in China is still problematic and not in accord with some of the core ILO international labour standards. From the perspective of wages, workers in the automotive industry are better off than most in China. However, there is a polarisation of wage levels along the supply chain, as well as between Sino-foreign joint-ventures and local companies.

2.1 History of the automotive industry in China

Since the 1950s the automobile industry has been perceived as one of the most important drivers of the modernisation of China's industrial base. China's central government, as well as numerous provincial governments, have been eager to invest heavily in car manufacturing to show the strength of national industrialisation and also to make use of the industry's long value chain that can facilitate the development of many and various firms and industrial capabilities and with this, a large number of jobs.

In the early 1950s, the Soviet Union strongly supported China in the establishment of modern truck factories. In July 1953, FAW began construction in Changchun city. In the 1960s, a number of car producers came into existence in Nanjing, Shanghai, Beijing and Jinan, and special-purpose vehicles, such as military trucks, civil fire engines and ambulances, were put into mass production. In 1964, the state decided to develop utility vehicle factories in third-tier cities. Thus, the Second Automotive Works (now Dongfeng Motor Corporation), as well as the Sichuan and Shanxi automotive factories were built. In this era, local factories all copied the models and products of national factories.

Since 1981, economic reform policies have led the automotive industry into an unprecedented development. The industry focus shifted from heavy vehicles to passenger cars and other light vehicles and reforms facilitated the increasing development of new models. In 1998, China ranked No. 10 in the world with an annual production of 1.628 million vehicles and No. 1 in producing motor cycles. China has been able to independently develop different automotive products to different degrees. However, passenger cars were an exception, as here the development of indigenous capabilities lagged behind.

One of the main characteristics of the Chinese automotive industry is that in the past three decades foreign investors and companies have played a vital role. In 1983 the first joint venture – *Beijing Jeep* – was established between BAIC and American Motors Corp. VW was another early foreign investor in China, setting up a joint venture with SAIC in October 1984, far earlier than other car makers (for example, GM came long only as late as 1997). By the end of 1998, companies from more than 20 countries had established more than 600 foreign-invested automotive enterprises with an investment of 20 billion USD, which accounted for more than 40 per cent of automotive industrial capital (Xu 2003).

This development went far beyond the initial ‘3+x’ plans of the Chinese government, in terms of which the three automotive groups – FAW, Dongfeng and SAIC – were at the centre of international cooperation, with another nine smaller auto producers, such as Guangzhou-Honda. FAW established joint ventures with Volkswagen and Toyota, Dongfeng with PSA and Nissan, and SAIC with GM and Volkswagen. For a long time, the strategic automotive groups of the Chinese government were focused on setting up Sino-foreign joint ventures rather than developing capabilities in car making, due to the lack of independent well-known brands and research capabilities (Xu 2003). In the early 2000s, the joint ventures between global players and China controlled more than 95 per cent of the market in China. Sino-foreign joint ventures are heavily regulated; foreign companies are permitted no more than 50 per cent of shares and their cooperation with Chinese car makers is limited to two.

2.2 Current structure of the automotive industry in China

In 2015, the top five auto groups in China were ranked as follows: SAIC, Dongfeng, FAW, Changan and BAIC. SAIC ranked No. 1 by selling 5.86 million vehicles, while Dongfeng, No. 2, sold 3.87 million. Among the top five, FAW and Dongfeng are directly owned by the central government, Changan belongs to a military group – China North Industries Group Corporation – while SAIC and BAIC are locally-owned public enterprises. Following these five largest groups, there are GAC (Guangzhou Automobile Group), Brilliance Auto, Great Wall, JAC and Geely Auto. As a whole, the top five accounted for 72.5 per cent of the market in 2015 and the top 10 for 89.5 per cent (CAAM 2016: 26)

Geographically, several industrial clusters have developed, centred around the factories of China’s six major auto groups. Northeast China, centred on Changchun city, has historically been the key auto industrial base. Currently the Beijing-Tianjin-Hebei area

The majority of car manufacturers focus on small- and mid-sized vehicles, such as passenger cars, buses, carriers and special purpose vehicles; mid-sized vehicles account for 77 per cent of the industry, while the share of small-sized vehicles is 18 per cent. Only about 5 per cent of enterprises make large-sized vehicles, but the proportion is increasing.

With regard to ownership, about 48 per cent of all auto companies were privately-owned in 2013. However, most were small- or medium-sized companies, with total capital assets that account only for 13 per cent of the entire industry. Foreign-invested companies, including Chinese-foreign joint ventures, on the other hand, have a share of below 23 per cent in China's automotive industry, but their total assets add up to 40.39 per cent.

2.2.1 Car makers

Five auto groups – FAW, SAIC, Dongfeng, Changan, and BAIC – dominate China's automotive industry. Between 2009 and 2012 restructuring and mergers under the instructions of central government reduced the number of car makers by about 10 per cent, but employment numbers grew. While concentration has been taking place, a further geographical spread is occurring. With the exception of three provinces – Tibet, Qinghai and Ningxia – all provinces and municipal cities have their own car factories. However, market share is highly concentrated. In 2015, more than 72.5 per cent of the market belonged to the top five producers. A few local auto groups and private Chinese producers are responsible for about 20 per cent. The current problem of China's automotive industry is thus rather the huge number of factories than overcapacity.¹

In 2013, foreign-invested car makers accounted for 25.9 per cent of total enterprises with capital of 95.7 billion yuan. In terms of numbers of enterprises, privately-owned enterprises ranked second, with 18.7 per cent of total enterprises, but with only 5.39 billion yuan of capital. On the other hand, state-owned and stock share enterprises were few but very large, with capital of 51.3 billion and 60.6 billion yuan. Although Chinese brands have made some progress, there were none in the top 10 selling models in 2015.

2.2.2 Parts and components suppliers

China is home to 12,090 automotive suppliers. Their sales in 2014 and 2015 were less than the total of the 480 car makers but the supplier sector grew much faster, at 8.3 per cent compared with the 1.7 per cent achieved by car makers. Privately-owned suppliers constitute the majority in terms of numbers of enterprises, but they are mostly small-sized and produce few products. These suppliers are highly dependent on the domestic market and have no stable connections with global supply chains. Many suppliers belong to Chinese car makers and became fully-owned subsidiaries during the restructuring of state-owned enterprises. Independent suppliers are mostly either foreign owned or private.

1. Sohu auto, It is not capacity that are excessive in the Chinese automotive industry but the number of factories, May 2013. <http://www.cwworld.cn/news/sycnews/sector/130517/65315.html>

Historically, China's central government has focused its policy tools largely on car makers and almost entirely neglected suppliers. Thus many car makers in China purchase parts and components from multinational suppliers. Foreign-invested suppliers are leading both in market share, at 50 per cent, and technological capabilities. In particular in the mid- and top-end market, foreign-invested suppliers obtain more than 70 per cent of the profits.²

Centred on or close to the major car makers, six supplier clusters and 11 national-level auto parts and components export bases have formed. Jiangsu province ranked No. 1 in the parts supplying sector with 13 auto parts industrial parks. Although Jiangsu only ranks seventh in terms of car manufacturing capacity, it is a strategic supplier to Shanghai. Except for the Shanghai and Jiangsu areas, no supplier clusters have developed in the vicinity of car makers, which is especially problematic in newer industrial bases such as Guangzhou.

2.3 Central government policies

China's huge investment over time and favourable policies since the economic reform have substantially favoured the growth of its automotive industry. Until the late 1970s the building of automotive factories was a major focus of the country's Five-Year Plans,³ while auto- and mechanical-related majors in universities were set up and investments were directed to research institutes and industrial standards. Before China's accession to the WTO in 2001 policies that supported technology acquisition and the development of independent R&D, as well as the internationalisation of local producers through tax concessions, high tariffs and import quotas on cars and parts were the government's focus.

China's state-owned automotive groups were the major recipients of government support in form of policies, capital, and new product approvals. In 1986, the Seventh Five-Year Plan clearly positioned the automotive industry as a pillar industry of China, and put forward quality and mass production as the main targets.⁴ The state began to encourage individuals to purchase cars.⁵

As early as 1978 a report developed the idea of foreign technology acquisition based on the principle of 'trading market for technology'.⁶ The central government intended to use complete-knocked-down (CKD) production as an instrument of technology acquisition and absorption to develop independent R&D capabilities and create their

2. China High-tech Industries Newspaper (中国高新技术产业导报), The automotive parts sector 'surrounded by foreign giants' and domestic enterprise should strength themselves, 16 May 2013. <http://www.foundry.com.cn/WebUI/IndustryNewsPre/IndustryNewDetial.aspx?typeId=12578>
3. New China Archives, Changchun FAW made the first China-made Jiefang vehicle. http://www.gov.cn/jrzq/2009-08/27/content_1402981.htm
4. China Industry Research Net, China auto industry and policy survey (2011年汽车政策扶起中国汽车产业调查分析), Sep. 2011. <http://www.chinairn.com/doc/70310/780422.html>
5. 21CN auto, Policies over 60 years since the establishment of PR China (建国60年汽车扶持政策梳理), Sep. 2011. http://auto.21cn.com/topic_all/xw/jnxz/a/2011/0928/11/9283720.shtml
6. China Business News, Shanghai VW: difficult beginning (上海大众: 轿车艰难起步), April 2008. <http://www.zgswcn.com/2008/0421/45471.shtml>

own brands.⁷ This opened up the Chinese market for foreign car manufacturers that started to establish Sino-foreign joint ventures in the following years. In 1994 the Automotive Industrial Policy encouraged auto enterprises to make use of foreign capital to develop the industry. This was the turning point for joint ventures and cooperative models. The tenth Five-Year Plan in 2000 continued to promote individual car-purchasing and developed the 'going abroad' strategy that helped Chinese companies to internationalise.⁸

In 1991, the State Council set the export target for mechanical and electronic products to account for 20 per cent of all exports by the end of the Eighth Five-Year Plan.⁹ It also stipulated that cars and parts were the focus and enterprises should try to gain access to North American and western European markets. The main policies included support for technological improvement of exporting enterprises, favourable investment in the local economic plan, gradually increasing medium- to long-term loans with discounts if advisable and providing foreign trade education to talented students. During the ninth Five-Year Plan, tax policies and simplified procedures were the key to encouraging local auto producers to export.

In recent years technological innovation and domestic market share have become the key focus for the traditional automotive industry, whereas the sustainability strategy initiated the new direction of developing new-energy and energy-saving vehicles. In particular, as the high tariff policies for imported cars and auto parts were phased out after China's entry to the WTO in November 2001, domestically-manufactured cars had to reduce their prices.¹⁰

The 2004 State Council's Automotive Industry Development Policy again emphasised its role as a pillar of the national economy, highlighting the importance of technology development through technology acquisition and the development of independent R&D capabilities. Moreover, in terms of development strategy, the Chinese government encouraged automotive enterprises to form corporation groups through strategic restructuring and make efforts to develop independent patents and brands.

The introduction of foreign technologies and the development of independent patents and brands have become the central focus of development as the Chinese government aims to upgrade the entire industry base. Privately-owned companies have been encouraged to attract foreign investment by the Ministry of Commerce since 2005. In 2006 the State Council announced support for the introduction of advanced

7. XKB Epaper, Events of the auto industry in China from 1978 to 2008 (1978-2008 改革开放30年中国汽车大事记), Jan. 07, 2009. <http://auto.163.com/09/0107/10/4V224EQ000834TJ.html>

8. People's Daily, Opinions on the national economy and social development in the tenth Five-Year Plan (中共中央关于制定国民经济和社会发展第十个五年计划的建议), 19 October 2000. <http://www.people.com.cn/GB/paper39/1716/277521.html>

9. The National Development and Reform Commission (NDRC) is a specialised department in the State Council. In general, the State Council sets the direction and supervises macro-level policies, whereas the NDRC carries out research and concrete tasks such as drafting economic and social development policies.

10. By July 2006, the tariff on cars was reduced to 25 per cent and for parts and components to 10 per cent. When the terms of WTO entry were negotiated, China bought some time for the automotive industry at the expense of agriculture and other sectors. In consequence, China postponed cancelling official certificates and reducing tariffs for imported cars to 2005.

technologies, key equipment and parts, as well as technology absorption. Moreover, procedures for offshore investments were simplified and funds allocated from the national foreign trade development fund to support R&D on products and technological innovation, in addition to more loans and tax refunds.

After the global financial crisis 2009, the market focus shifted more to the domestic side. With its Automotive Industry Adjustment and Revitalisation Plan the State Council helped to develop domestic demand by lowering restrictions on and the cost of car purchases. At the same time, the restructuring of the industry continues to be on the policy agenda. The 2009 plan encouraged the Big Four to acquire smaller enterprises nationwide, while promoting some leading parts and components companies to expand through mergers and restructuring in order to increase their market share, both internationally and domestically.¹¹ The Ministry of Industry and Information announced in 2009 that new operating facilities must be built on the basis of mergers and takeovers of existing automotive enterprises and reported to the provincial-level governments and above.¹² In order to improve China's innovation environment new policies that raise intellectual property protection in the automotive industry have been introduced.¹³

The 2004 'Regulations on the issues regarding investment on enterprises abroad'¹⁴ set detailed rules on how Chinese companies are to establish new overseas firms, or merge, takeover, buy shares in or invest in existing foreign companies. In 2014, the 'Management methods concerning the approval of and reporting on investment projects overseas'¹⁵ named the National Development and Reform Commission as the main regulatory body for all projects worth more than 1 billion USD. Smaller projects are regulated by provincial-level governments. Additionally, since 2010, the requirements and procedures with regard to 'going abroad' were reduced and simplified continuously.¹⁶

In its 2015 guidance the State Council encouraged offshore investments by domestic independent car brands in developing countries in order to export cars and parts of independent Chinese brands. With regard to Europe and North America the State

11. Central government website, Plan of adjusting and renewing the automotive industry (汽车产业调整和振兴规划), March 2009. http://www.gov.cn/zhengce/content/2009-03/20/content_8121.htm

12. Central government website, the Ministry of Industry and Information on strengthening the documentation of automotive manufacturers (工业和信息化部关于加强汽车生产企业投资项目备案企业的通知-工信部装〔2009〕93号), Aug. 2009. http://www.gov.cn/zwggk/2009-08/24/content_1399817.htm

13. Central government website, State Council's Announcement of special actions on punishing violations of intellectual properties and selling fake commodities (国务院办公厅关于印发打击侵犯知识产权和制售假冒伪劣商品专项行动方案的通知), Nov. 2010. http://www.gov.cn/zhengce/content/2010-11/07/content_5469.htm

14. Central government website, Regulations on approvals of overseas investment and establishment of enterprises (关于境外投资开办企业核准事项的规定), Nov. 2006. http://www.gov.cn/fwxx/bw/swb/content_447509_2.htm

15. NDRC, Methods of certifying and recording overseas investment projects (境外投资项目核准和备案管理办法), April 2014. <http://www.ndrc.gov.cn/zcfb/zcfbl/201404/W020140410560098013507.pdf>

16. Central government website, Announcement on overseas guarantee management by domestic organisations (关于境内机构对外担保管理问题的通知), July 2010. http://www.gov.cn/gzdt/2010-07/30/content_1668261.htm; State Council's Announcement on the opinions of the NDRC and other departments on facilitating international cooperation and nurturing new competitive advantages (国务院办公厅转发发展改革委等部门关于加快培育国际合作和竞争新优势指导意见的通知-国办发〔2012〕32号), June 2012. http://www.gov.cn/zwggk/2012-06/01/content_2151106.htm

Council encouraged the setting up of automotive technological and engineering R&D centres to support the development of Chinese R&D capabilities.¹⁷

Recently, energy-saving and new energy vehicles have become a focal point of China's automotive industry. Already the Eighth Five-Year Plan (1991–1995) named 'Research on the key technologies of electric vehicles' as a key project. Since 2001, the Chinese government has been actively promoting these new fields with large investments. The Tenth Five-Year Plan set up a 950 million yuan R&D fund to develop the foundations for three car assembly technologies – pure EV, hybrid plug-in vehicles, and fuel cell vehicles – as well as three key parts and components technologies (multiple-energy motor drive control system, electric motor and control cell system, and power battery and battery management system). In this process, the Big Six Chinese car makers have taken leading positions in cooperation with key parts and components suppliers and with research institutes and universities. Huge and costly pilot projects have promoted new energy vehicles since 2009 in 13 cities, such as Beijing, Shanghai and Chongqing.¹⁸ Clear standards on the production and entry requirements were set, while large subsidy funds were created that aimed at whole cars, as well as components.

The new sectors provide opportunities for China's automotive industry that are unparalleled in the traditional automotive sector and have already seen major successes; for example, Chinese suppliers have become world leaders in lithium batteries R&D. As for major components such as electric motors and control systems, China has a relatively mature and fairly competitive sector.

Traditional leading car makers play an important role in the development of China's new automotive sector. However, they often cooperate with high-tech companies that provide key technologies in battery, electric motor and electric control systems. The same strategy has been adopted by traditional parts and component suppliers. However, also another type of brand-new car maker, such as BYD, has emerged. BYD was a mobile-phone battery producer which accounted for 50 per cent of the market niche worldwide. Since 2003, BYD has entered the car manufacturing business and has focused on lithium batteries for electric vehicles.

3. Chinese overseas investments

China's foreign investment activity started in the late 1990s, mainly in Latin America, Africa and other emerging markets. Supported by the central government's 'go abroad' strategy, which sought to raise overall competitiveness and boost the long-term upgrading of economic development, while providing a secure supply of raw materials, major Chinese state-owned enterprises and private firms started to invest in foreign markets and acquire foreign companies.

17. Central government website, State Council's Guidance on the promotion of international cooperation of capacity and equipment manufacturing (国务院关于推进国际产能和装备制造合作的指导意见-国发〔2015〕30号), http://www.gov.cn/zhengce/content/2015-05/16/content_9771.htm

18. Central government website, Announcement on the pilot projects on energy-saving and new-energy vehicles (关于开展节能与新能源汽车示范推广试点工作的通知), February 2009. http://www.gov.cn/zwgg/2009-02/05/content_1222338.htm

As China's outward FDI flows grew they shifted towards financial and technology-oriented acquisitions and focused increasingly on the United States and Europe. During the 2008 financial crisis Chinese investments surged in Europe and their level has not receded since then, with most investments going into the energy and automotive sectors. Chinese investments have gradually started to focus on Europe as a source of technology to support China's upgrading process, investing also in greenfield R&D centres.

While Chinese companies are investing in the automotive sector in Europe, the region with most merger and acquisition activity, most mergers and acquisitions in this sector are by US and European companies. Most Chinese investments in the automotive sector have focused on suppliers. By early 2016, 51 acquisitions by Chinese investors had been documented in the European automotive sector, with suppliers and Germany as the main focus. Chinese investors are interested in technological expertise, brand value and easier entrance into the global supply chains of leading car OEMs.

3.1 Development of Chinese outward FDI in the automotive industry

In 2014 in the automotive industry the first rise in merger and acquisition volume in years was registered. However, the deal volume has not yet reached pre-crisis level. Of the overall 542 deals in 2014, 181 were worth a total of USD 38.7 billion. PWC (2015) reports that in 2014 the average disclosed deal value was the highest since 2009. Of these 181 disclosed deals six had a value greater than USD 1 billion and 37 a value between USD 100 million and USD 1 billion. Out of the top 20 deals only two were international deals involving Chinese companies. Dongfeng Motor's acquisition of 14 per cent of PSA Peugeot Citroen had a value of 800 million euros and AVIC's purchase of Hilite International was worth 473 million euros.

In recent years Europe has been the most active region as both acquirer and target (PWC 2015). Europe was the target of an average of 41 per cent of all merger and acquisition deals between 2009 and 2014. Most of the automotive industry's merger and acquisition deals take place in Europe and the major share of them is local. However, Europe also saw the largest number of inbound deals, pointing to the fact that companies from Europe are interesting acquisition targets for international industry players.

From a segment perspective, European automotive suppliers are also the most interesting group of companies worldwide. In 2013 North American and European suppliers were the main targets of acquisitions, representing 67 per cent of all deals. With 36 per cent of all deals in 2013 automotive suppliers from Europe continued to be the main target of acquisitions. However, suppliers from both regions are also the most active buyers with 32 per cent and 30 per cent, respectively, of all transactions originating from North American and European companies in 2013. Companies from North America were able to overtake European suppliers as buyers for the first time since 2008. Chinese companies slowed down their acquisition activities in 2013, dropping from 10 per cent of deals to 5 per cent (PWC 2014).

However, while Chinese suppliers slowed their international acquisitions they continued with their investment programmes. Chinese suppliers have been investing most in CAPEX for several years and with 13 per cent had the biggest growth rate worldwide in 2013. As their growth was double that of Chinese automotive OEMs, they have gained global market share.

3.2 Chinese investments in the European automotive sector

The European automotive industry has seen considerable investments, especially by private equity companies. In the direct aftermath of the 2008 crisis an upsurge in this type of investment took place, particularly at supplier level.¹⁹ A significant share of European automotive companies acquired by Chinese investors were owned by private equity firms – out of the 51 documented acquisitions, Chinese investors bought at least 15 from private equity firms (Table 1). Private equity investors tend to focus on debt-leveraged short-term gains, loading the acquired company with a huge financial burden that they subsequently have to repay. This is often accompanied by low investment and pressurising workers through lay-offs, wage reductions and deterioration of labour relations. Acquisition by an investor with long-term goals and a heightened sensitivity to public perceptions of its management style, however, can have positive consequences in terms of both investment and labour relations. On the latter issue, because Chinese management is often not acquainted with the European model of labour relations – based on democratic and authentic worker representation and co-determination, albeit varying from country to country – the handling of unions, works councils and worker representatives is uncertain.

A total of 40 acquisitions of automotive suppliers and 11 acquisitions of car OEMs were documented in Europe between 2005 and 2016 (Table 1). While the United Kingdom saw the biggest number of acquisitions of car OEMs by Chinese investors – MG Motors, Manganese/London Taxi and Emerald Automotive – these companies are small and produce for niche markets. The two biggest takeovers of car OEMs in the European automotive sector were Geely's 2010 acquisition of Volvo and the 2012 takeover of Saab by NEVS, a Swedish company owned by Chinese investors. Although both European companies are smaller OEMs they are of considerable size and known for their engineering and technology leadership. The latest Chinese investment in a European car OEM is Dongfeng Motor's acquisition of a 14 per cent stake in PSA Peugeot Citroën in 2014. Also in 2014 the Chinese State Administration of Foreign Exchange took a 2 per cent stake in FIAT.

Germany is the most important European location for Chinese automotive investments regarding number of acquisitions. All of the 32 documented acquisitions in Germany involved automotive suppliers (Table 1). While most takeovers in Germany were relatively small, well below 100 million euros, ZF Gummi & Kunststoff, KSM Castings and Hilite International were of much bigger value at 290 million, 300 million and 473 million euros, respectively. Hilite's acquisition by AVIC Mechanical & Electrical

19. Financial buyers have a consistent share in the merger and acquisition activity of the automotive industry; their share rose to 78 per cent of total value and 31 per cent of total volume in 2009 (PWC 2012).

Systems was the eleventh biggest acquisition in the automotive industry in 2014 (PWC 2015). The biggest acquisition in Germany's automotive sector to date was reported at the beginning of 2016, with ChemChina acquiring chemical-process (plastics/rubber) machine builder KraussMaffei. However, in 2016 this deal was trumped by Midea's take over of Kuka, a supplier of robots. This deal was considered so strategic that the German government tried to drum up a counteroffer by a German corporation, but failed to do so.

While German car OEMs and leading tier-1 automotive suppliers are huge groups, too big for a direct takeover by Chinese investors, the *Mittelstand* characteristic of most parts of Germany's automotive sector allows a relatively easy entry. Many Chinese investors in Germany are parts of huge conglomerates, often market leaders and predominantly state owned.

However, the biggest acquisition took place in Italy in 2015 when China National Tire & Rubber, a division of National Chemical Corporation (ChemChina), announced the acquisition of Pirelli. At 7.1 billion euros this was the fifth biggest outbound investment by a Chinese state-owned enterprise to date. Additionally, the future Chinese owner announced it was planning to take Pirelli private.

Most press releases on and independent analyses of the various acquisitions underscore three main aims on Chinese investors' agendas. First, Chinese companies are interested in the technology and know-how in the acquired European OEM or supplier. While the investors often already have a considerable market size, their products more often than not lack leading-edge technologies and quality assurance systems. Directly connected to this is the second goal, as Chinese investors are interested in the additional acquisition of brand names. Both central aims culminate in the strategic focus of being able to enter the global supply chains of leading Western car OEMs, while also enabling the upgrading of Chinese OEMs with leading-edge components.

Looking at the documented acquisitions from a Chinese perspective only four companies stand out with more than one acquisition in Europe. Ningbo Huaxiang Electronics has acquired six automotive suppliers in Europe, while Joyson Electronics has acquired five, Anhui Zhongding Group four and AVIC Electromechanical Systems three. All four suppliers have focused their acquisitions on suppliers that would provide them with capabilities in one of their major business operations. Geely and SAIC, on the other hand, do not exhibit a specific focus in their acquisitions. However, Geely has been consistent; this relatively small Chinese car OEM has acquired three European car OEMs. ChemChina is responsible for the two biggest acquisitions – Pirelli and KrausMaffei – its investments totalling around 8 billion euros.

Conclusion

For the past few decades China's automotive industry has found itself at the centre of the country's industrial development, upgrading and technology acquisition strategies. Some of the most central industry policy instruments, such as the 'trading market for technology' strategy, were developed for the automotive industry and only later spread to other industrial branches (Pawlicki 2016). However, industrial policies in China focused mainly on advancing local car makers, leading to an uneven development within the automotive value chain, as Chinese automotive suppliers lack technological capabilities and economic strength. Only recently have both local and national policies started to target suppliers.

The primary problem with China's automotive industry is its lack of independent research and development capabilities. The government has made great efforts to enable the industry to absorb foreign technologies, putting a heavy focus on joint ventures as the vehicle for technology acquisition. However, this has driven domestic companies to focus on developing their manufacturing expertise and operations, while keeping them heavily dependent on their foreign joint venture partners' technologies. Their incentive to develop their own research capabilities was thus small. Furthermore, many technologies provided by foreign companies were out of date, from a world market perspective. China's central government has not developed an environment supportive for local automotive R&D. For Chinese automotive suppliers this problem has been aggravated by their general underdeveloped status.

In recent years Chinese companies have been searching for new possibilities to acquire technologies that would allow them to upgrade towards a technology and innovation based market position. Chinese outward FDI has increasingly become a tool for the country's industrial policy aimed at a medium- to long-term upgrading of its industrial base. This has led to a shift in China's investments from natural resources and US government treasuries towards financial and technology-oriented acquisitions, while moving away from Latin America and Africa towards North America and Europe.

Chinese investments in the European automotive sector are strategic investments that target the particular company's technological and/or process expertise and development capabilities, business and supply chain position and brand. The strategic focus of some Chinese investors goes well beyond a single company as acquired capabilities seem to be used for local industrial upgrading strategies in China. As long as no substantial crisis interrupts the dynamic growth path of China's automotive industry it is likely that the number and volume of outward FDI in this sector will grow in the coming years.

The strategic character of Chinese investments translates into a careful preservation of local – European – resources and capabilities. Manufacturing, engineering and managerial resources are kept in Europe and the feared rapid drainage of resources has failed to materialise. European resources are used to build up capabilities in China through knowledge absorption and learning processes. Chinese investors have a positive attitude towards investments and a long-term orientation. Coupled with the strategic perspective on European operations this leads to investments in European operations

that are long overdue. There are already reports that show that management in Europe often does not change substantially after an acquisition by a Chinese company. Either existing executive management teams are kept in place or other experienced management personnel from Europe has been hired. While Chinese investors give European operations relative autonomy, they exercise control through financial targets (Luo and Pawlicki 2016).

With this the medium-term development of Europe's automotive industry, as location for both R&D and manufacturing, seems not to be threatened by Chinese investments but rather to benefit from them. Chinese companies help to provide much needed investments for mid-sized suppliers that have been hit hardest by the increasing restructuring of supply chains by car OEMs. Both the already realised and announced investments of Chinese investors in the European automotive suppliers, as well as the highly developed regional supply chains are a medium-term guarantee for manufacturing and R&D resources in this region. Knowledge and expertise on processes, products, security and technology located in European companies and supply chains are too valuable to be put at risk by Chinese companies. Chinese investors seem to understand fully the close relationship between R&D and manufacturing, which will stabilise resources in Europe at least for the medium term.

New research also suggests that the current increasingly recursive internationalisation of both manufacturing and R&D will help to strengthen the position of at least some manufacturing capabilities and operations in Europe (Herrigel 2015). Internationalisation has moved beyond the simple search for low-cost locations and hierarchical centre–periphery relations towards a much more open structure regarding knowledge flows, where locations on the periphery are enabled to contribute to production process development equally. This evolving new internationalisation is based on processual and recursive knowledge exchange that is in part based on a spatial coupling between manufacturing and R&D. In this newly developing global production networks' manufacturing capabilities will be kept in high-cost locations to enable R&D and innovation dynamics, especially for the process level.

However, going beyond the current characteristics of the global automotive industry and its central technology, the combustion engine, China's car manufacturers and suppliers have been able to develop a technology leadership in central components of the EV industry. Coupled with China's aggressive industrial policies towards the development of EV and autonomous driving this can lead to a medium-term shift in the power structures of global automotive supply chains.

Table 2 Acquisitions by Chinese investors in the European automotive industry

| Years | Company | Country | Industry position | Investor | Ownership | Value of transaction |
|-------|--|-------------|-------------------|--|-----------|----------------------|
| 2005 | MG Motor | UK | OEM | SAIC | SOE | GBP 53 million |
| 2006 | Lawrence Co. | UK | Supplier | Ningbo Huaxiang Electronic (NBHX) | Private | GBP 3.4 million |
| 2009 | Schmitter | Germany | Supplier | Anhui Zhongding Group | Private | |
| 2010 | Jaguar Land Rover's interior production facility | UK | Internal supplier | Ningbo Huaxiang Electronic (NBHX) | Private | GBP 15 million |
| | Volvo | Sweden | OEM | Zhejiang Geely Holding Group and Daqing city government | Private | US\$ 1.5 billion |
| 2011 | Saargummi | Germany | Supplier | Chongqing Light Industry & Textile (CQLT) | SOE | €68 million |
| | Preh | Germany | Supplier | Joyson Electronics | Private | |
| | Sellner new name: NBHX Trim | Germany | Supplier | Ningbo Huaxiang Electronic (NBHX) | Private | €19 million |
| | KSM Castings | Germany | Supplier | Citic Dicastal Wheel Manufacturing (CITIC Group) | SOE | €300 million |
| | Inalfa | Netherlands | Supplier | Beijing Hainachuan Automotive Parts (BHAP) - auto parts group of BAIC | SOE | |
| 2012 | Saab | Sweden | OEM | NEVS | Private | |
| | Kiekert | Germany | Supplier | – Hebei Lingyun Industrial, part of China North Industries Corporation (NORINCO) – Henan North Xingguang Machinery and Electric – Tianjin Investment | SOE | NA |
| | Buzuluk | Czech | Supplier | – Dalian Rubber & Plastics Machinery – Tianjin Machinery Import & Export Corporation | SOE | NA |
| 2013 | Tailored Blanks | Germany | Supplier | Wuhan Iron and Steel (Wisco) | SOE | |
| | HIB Trim Part Solutions | Germany | Supplier | Ningbo Huaxiang Electronic (NBHX) | Private | €34 million |
| | Innoventis | Germany | Supplier | Preh – subsidiary of Joyson Electronics | Private | |

Table 2 Acquisitions by Chinese investors in the European automotive industry (cont.)

| Years | Company | Country | Industry position | Investor | Ownership | Value of transaction |
|-------|--|-------------|-------------------|---|-----------|----------------------|
| | IEE | Luxembourg | Supplier | HiWing (55%), SAIC Luxembourg (15%), Ascend Capital (30%) | SOE | |
| | Manganese Bronze Holdings PLC | UK | OEM | Zhejiang Geely Holding Group | Private | US\$18.5 million |
| | Spyker | Netherlands | OEM | China Young Man Automobile Group Co.,Ltd | Private | €10 million |
| | Alnbert Ziegler | Germany | OEM | China International Marine Containers (CIMC) | SOE | €55 million |
| 2014 | ZF Gummi & Kunststoff New name: Boge Rubber & Plastics | Germany | Supplier | Zhuzhou Times New Material Technology (TMT) – main owner China South Locomotive & Rolling Stock (CSR) | SOE | €290 million |
| | I&T | Austria | Supplier | Changzhou Xingqyu Automotive Lighting | Private | |
| | PSA Peugeot Citroën | France | OEM | Dongfeng Motor Group | SOE | €800 million |
| | Hilite International | Germany | Supplier | Aviation Industry of China (AVIC) Electromechanical Systems | SOE | €473 million |
| | KACO | Germany | Supplier | Anhui Zhongding Group | Private | €64 million |
| | Kokinetics | Germany | Supplier | Aviation Industry of China (AVIC) Electromechanical Systems | SOE | |
| | Koki Technik | Germany | Supplier | Aviation Industry of China (AVIC) Electromechanical Systems | SOE | |
| | IMA Automation | Germany | Supplier | Preh – subsidiary of Joyson Electronics | Private | €20 million |
| | Schumag | Germany | Supplier | Meikai Group/Meibah Precision Machinery | Private | €2.8 million |
| | Nedschroef | Netherlands | Supplier | Shanghai Prime Machinery Company (PMC) | SOE | €325 million |
| | Emerald Automotive | UK | OEM | Zhejiang Geely Holding Group | Private | |
| | Borgward | Germany | OEM | Foton (BAIC) | SOE | |

Table 2 Acquisitions by Chinese investors in the European automotive industry (cont.)

| Years | Company | Country | Industry position | Investor | Ownership | Value of transaction |
|-------|---------------------------------------|---------|-------------------|--|-------------|----------------------|
| | FIAT Chrysler | Italy | OEM | The State Administration of Foreign Exchange | SOE | |
| | FLT Kraśnik / Polish Bearings Factory | Poland | Supplier | Xiangyang Automobile Bearing, subsidiary of Tri-Ring Group | | |
| | Alterprodia | Germany | Supplier | Ningbo Huaxiang Electronic (NBHX) | | €900,000 |
| 2015 | Wegu | Germany | Supplier | Anhui Zhongding Group | Private | US\$ 107.4 million |
| | Waldaschaff Automotive | Germany | Supplier | Hebei Lingyun Industrial, part of China North Industries Corporation (NORINCO) | SOE | |
| | Quin | Germany | Supplier | Joyson Electronics | Private | €90 million |
| | Pirelli | Italy | Supplier | China National Tire & Rubber, a division of China National Chemical Corp (ChemChina) | SOE | €7.1 billion |
| | DeCon GmnH | Germany | Supplier | Ningbo Huaxiang Electronic (NBHX) | | €2.2 million |
| | De Tomaso | Italy | OEM | Ideal Team Venture Limited | Private | €1.5 million |
| | Wiederholt | Germany | Supplier | Anhui Zhongding Group | Private | |
| 2016 | KraussMaffei | Germany | Supplier | China National Chemical Corporation (ChemChina), Guoxin International Investment Corporation, AGIC Capital | SOE | €925 million |
| | Kuka | Germany | Supplier | Midea | | €4.6 billion |
| | SHW | Germany | Supplier | Anhui ARN Group | | |
| | Dürr / Ecoclean | Germany | Supplier | SBS Group (Shenyang Blue Silver Group) | private (?) | €100 million |
| | AMK Holding | Germany | Supplier | Anhui Zhongding Group | Private | €130 million |
| | Aberle | Germany | Supplier | PPM Solutions | | NA |
| | Punch Powertrain | Belgium | Supplier | Yinyi Group | | NA |
| | Technisat Automotive division | Germany | Supplier | Joyson Electronics and Preh | | NA |
| | PURtech | Germany | Supplier | Zhejiang Yinlun Machinery Ltd. | | NA |

Source: Authors' research.

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