

# Trajectory of Automotive Industry and Government Intervention in Central and Eastern Europe — The Czech Republic, Poland, Hungary, Slovakia —

(中・東欧における自動車産業の展開と政策関与の変遷：  
チェコ、ポーランド、ハンガリー、スロバキアにおける事例研究)

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## Chapter 1. Introduction

During the quarter of a century after the political transition in 1989, Central and Eastern Europe (CEE) underwent double fundamental changes both in government and economy; the transformation from Communism to capitalism or market economy, and gaining membership in the European Union (EU) in 2004.

The EU accession granted a wider market, EU with the population of 500 million, to the new member countries, which led the CEE to the advancement of economy.

Capitalism established owing to the velvet revolution and fall of the Berlin wall, however, left various kinds of aftermaths in society and politics behind, and made the greatest impact on economy and industry. After the collapse of the communist regime, the Central and Eastern European countries were forced to get involved in market economy, which had been absent for four decades since the 1950s. The end result of political transition was nationwide slump and depression, namely transition recession. (The World Bank, 15). The negative side effects of the transition continued for a long time, with every country trying to cope with the chaos.

What was urgently needed was to develop industry through privatizing former state-owned and inefficient facilities and induce foreign direct investments. (Lavigne, 162). Every government took the initiative in privatization and played a leading role in attracting foreign investors especially to automotive industry, which had had a long tradition in CEE, and whose development was crucial to the rehabilitation of economy. (Pavlínek, 2005, 71). As Pavlínek explicates, “the automotive industry has traditionally been considered one of the more important modern industries because of its size, linkages with other industries, and ramifications for the entire economy”. (Pavlínek, 2001, 614).

The four Visegrad countries – the Czech Republic, Poland, Hungary and Slovakia, share some distinctive features favorable for industrial development; proximity to Western Europe, presence of highly skilled and low-waged workforce, and long tradition of technology. On the other hand, the essential condition indispensable for industrial promotion, namely capital, was far short of the required

amount. (Arratibel *et als.*, 25). “CEE producers lacked capital not only to sustain pre-1989 production levels, but also to finance actions necessary for their long-term survival...and overall restructuring”. (Pavlínek, 2001, 627) Every government of these four newly reshaped countries, therefore, was compelled to induce foreign investments. (Table 1; Figure 1)

Foreign direct investment (FDI) is generally categorized into *greenfield* investment and *brownfield* investment. The former is labelled as foreign acquisition, the latter foreign start-ups. (Rooij, 1; Glückler, 18). Multi-national firms launching upon production by setting up new facilities outside their home bases are likely to resort to greenfield investment. The benefit of utilizing greenfield investment lies in its flexibility and efficiency to satisfy the needs the companies feel. (Glückler, 18-19; Worrall *et als.*, 3-4; Investopia).

When major global firms appreciate time and money, they tend to have recourse to brownfield investment, which is usually less expensive and can be implemented faster. (Carpenter & Dunung, 2-3; Worrall *et als.*, 3). Companies exploiting brownfield investment can utilize existing facilities and workforce.

The governments of CEE, therefore, attempted at inducing FDI to automotive industry, which was determinant to economic development. (Rechnitzer and Toth, 74).

Utilizing a long tradition of car manufacturing, beginning in the 1890s, automobile industry of the Central and Eastern European countries tried to resume vehicles production soon after the political transition. Nowadays car manufacturing plants including suppliers in the four Visegrad countries are integrated in a relatively small area within a 400-kilometer diameter, ranging from West Slovakia to Eastern and Central Czech Republic, from Southern Poland to Northern Hungary. (Tirpak, 2-3; The World Bank, 31, 51; Frost & Sullivan, 6, 15). Together with spillovers from competition. (Blomstrom and Kokko, 9, 15), convenience for transportation may explain the formation of car manufacturing hub in these regions. (EMIS, 13). Assembly companies require just-in time delivery of car components. Another reason may lie in the fact that every government of the four countries concentrated its efforts and money on these districts to enhance vehicle industry, utilizing spillover effects of integration. (EMIS, 13; Radosevic *et al.*, 25; Rechnitzer and Toth, 3; Glückler, 6).

The governments' efforts are considered to have born fruit in that the automotive industry of these countries has come to occupy vital and main position in their economy, accounting for nearly 5% to 10 % of gross domestic production (GDP) and 10 % ~ 15% of workforce. (See, Figure 3).

The trajectory of development of automotive industry, however, showed a marked difference among the countries concerned. The Czech Republic and Slovakia have concentrated on finished car production, while Poland and Hungary on car components supplying. These differences in country patterns of car manufacturing have been generated by a combination of factors intertwined with each other. (Radosevic, 36). Government intervention to enhance car industry via attracting foreign direct investments may have given a great contribution. Analyzing the key elements causing the differences will clarify the specific features of industrial and investment policy of the countries concerned. (Figure 2; Table 2)

The purpose of this paper is to trace the development of the automotive industry in CEE and the roles played by the respective government to induce FDI.

Investigation of the role and extent of the government intervention ranging from granting subsidiary to inducing foreign direct investment, will disclose the process of car industry of the four- countries as well as the differences of their economic development.

## **Chapter 2. Trajectory of automotive industry in Central and Eastern Europe**

### **2-1-a. The Czech Republic**

The Czech Republic has inherited the richest tradition of car manufacturing in the CEE countries. Automobile production began as early as in the latter half of the 19<sup>th</sup> century, and auto industry has been occupying the most important position in its economy to date. The brilliant history, however, was disrupted by the communist regime in the 1950s, and all of the automotive companies were nationalized by the new government. The organized companies were forced to follow the orders issued by the central government under the communist system of the planned economy and distribution of labor.

Škoda, the greatest car maker in the Czech Republic, has played a leading role in Czechish automobile industry since the country plunged into market-oriented economy due to the collapse of the socialist regime. Škoda, founded in 1895, came to establish its own-brand with the long tradition of car production. But the socialist regime nationalized Škoda in 1948, and placed the firm under a state management. The nationalized Škoda continued to produce passenger cars, but in the 70s, their products became outdated and lost attraction. In the 80s, Škoda was still making vehicles whose design was that of the 1960s. (Kriz, 5; Pavlínek, 2001, 622). Ledgard introduces an anecdote, or humiliating joke, about obsolescence of Škoda cars saying that “‘What do you call a Škoda at the top of a hill?’ A miracle”. (Ledgard, 6). This situation was caused by the lack of capital and no competitive pressure under the COME system of division of labor. (Pavlínek, 2001, 617, 619).

With the advent of democratization in 1989 and the transition into free market economy, the new government promoted the privatization of automotive companies including Škoda, and planned to induce foreign direct investments by Renault of France. After a long and complicated negotiation, the privatization of Škoda, however, was realized through the buying out by German maker, Volkswagen, which aimed at retention of Škoda brand. Volkswagen utilized the Škoda brand as one of its key brands along with Seat, Audi, and VW. (Tulder and Ruigrok, 23-24; Ledgard, 2). Škoda VW began to produce new model cars such as Octavia and Fabia under the brand name of Škoda. Within the Volkswagen group, Škoda has made a remarkable progress, producing 60,000 vehicles in 1990. The prosperity of Škoda depended mainly on the direct investments of Volkswagen, gaining 31 % of the ownership of Škoda in 1991, 70 % in 1995, full ownership in the late 90s. (The World Bank, 11; Tulder and Ruigrok, 24).

The notable success of Škoda, abundance of highly skilled workforce, and accumulated automotive technology, became an incentive to invite foreign investments, invigorating Czech auto industry again and made the industry a driving force in its economy. The number of car products doubled in 1998, from

20 0,000 in 1997, and reached up to 556,433 in 2006. (Czech Invest, Škoda; Kriz, 6).

The establishment of TPCA (Toyota Peugeot Citroën Automotive), the joint venture of the Japanese Toyota and the French PSA, in 2005, marked another turning point of Czechish auto industry. Unlike Volkswagen and Škoda, TPCA invested directly in Czech automotive industry to set up new factories, laying out 15million Euro in 2001. TPCA, moreover, planned to employ 3000 workers, which enhanced the automobile industry significantly. Owing to the remarkable contribution of TPCA, the total number of cars produced in Czech in 2010 reached a million, 2.5 times as large as that of 2004. (Kriz, 6).

The third turning point was marked by Hyundai (現代), the leading Korean global automaker. Hyundai began to produce automobiles in Czech in 2009, and the number of the products reached 200,000 in 2010. (Kriz, 11 ~ 12)

All of the parent companies of Škoda Auto, TPCA, and Hyundai Motor Manufacturing Czech, founded car component firms, and these suppliers under the umbrella of global car makers made a substantial contribution to Czech economy.

Besides these big international companies, the Czech Republic has a large number of smaller car makers, which had actively been involved in auto production before the political transition. Tatora, established in 1850, had mainly produced commercial cars, while Avavia had concentrated on truck production. Both of the ingenious firms shifted into car component suppliers after the 90s. Automotive industry including component manufacturing exerts pervasive influence over other sectors of economy extending from metallurgy, the chemical and plastic industry to the construction industry. (Czech Trade Promotion Agency, 2). Thanks to the automotive industry, Czechish economy enjoys stable development.

## **2-1-b**

Among the four Visegrad countries, the Czech Republic is considered to have achieved the most brilliant success in terms of auto industry. Annual production of vehicles has continued to reach about million for a decade to date. The Czech Republic shares the most remarkable feature of automotive industry in CEE – the tendency to export the assembled products. Nearly 100 % of TPCA vehicles and 85 % of Škoda's are sent to export, and this propensity is also maintained in the suppliers. The Czech Republic has become a base for exporting finished vehicles and car components to Europe. Geographical and financial reasons have accelerated the trend; proximity to a great market with the population of 500 million, EU, being situated in a cross road between Europe and Russia, and presence of the major car makers owned by foreign parent companies, including VW (Germany), Fiat (Italy), Toyota (Japan), Hyundai (South Korea).

Another feature of the Czechish car industry is the fact that the government took a positive and leading initiative to induce foreign investments, (Worrall *et als.*, 7), which was betrayed in the negotiation of privatization of Škoda. Against all expectations, the German Volkswagen beat the 23 foreign car makers including the French Renault in the bidding contest. (Ledgard, 2-3; Kriz, 6). The government judged it more profitable for Czech industry to leave the brand name of Skoda, which was

offered by VW but declined by Renault. The discrepancy of the amount of investment proposed by VW and Renault also played a decisive role in the negotiation; Renault offered \$2.5 billion and VW \$5 billion. (Ledgard, 6-7).

Various kinds of financial assistance were provided by the government. Preferential policy to induce foreign investment was employed in 2001, extending from exemption of taxes to many sorts of subsidies. (Allen and Overy, 27; Kriz, 5 ~ 6). Owing to the active intervention of government in the automotive industry, together with the stable political circumstances, foreign investors and car manufacturers found it safe and beneficial to invest in Czech. (Rechnitzer and Toth, 79, 87).

### **2-2-a. Poland**

In Poland, automotive industry is “the second biggest industry, with 10 % of total production and one-sixth of total exports” in 2009. (Toporwski, 25; Bulinski, 3; JETRO, 2002, Report 4, 29). “In 2007, every fourth car manufactured among the twelve new EU members came from Poland”. (Frost and Sullivan, 5). “The level of production exceed(s) 900 thous. vehicles per year”. (Bulinski, 1). The success of Polish automobile industry depends primarily on demographic factor. Poland has the largest population of 38 million in Central and Eastern Europe, the sixth in the EU after Spain, and enjoys the greatest scale of market and economy in CEE. Multi-national car makers have made the best use of skillful and low waged workforce. (Frost and Sullivan, 19).

Poland had a long tradition of vehicle production starting in the 1890s, and after WW II , the Socialist government founded FSO (Fabryka Samochodow Osobowych – Passenger Automobile Factory) in 1951, which manufactured smaller vehicles.

In 1965, the government granted a license to Italian car maker, Fiat, to produce Fiat models at FSO. Polski Fiat 125p, a replica of Fiat 125, was substituted for Warszawa, old model produced at FSO. After transition, Fiat “propose to create a holding company combining both FSM (Fabryka Samochodow Malolitrazowych) and FSO, in which Fiat would act as ‘strategic investor’”. (Tulder and Ruigrok, 25) But Polish government declined the suggested scheme, granting only 51 percent share of FSM. (*ibid*, 25).

In this way, the Italian car manufacturer, Fiat, got related with Polish car industry during the socialist regime. Fiat, established in Torino in 1911, played a leading role after the initial involvement with Poland until 2010’, when it transferred the production of Fiat Panda to Naples, Italy. (Polskie Radio).

Soon after the transition into market economy, the multi-national car companies started to invest directly in the former state-owned enterprises under the guidance and leadership of the Polish government. The first stage of the privatization didn’t work well. (Tomimori, 42, 47, 51). But to overcome the transition recession – the severe side effect of revolution – the key of economic recovery depended on automotive industry. The Polish government accelerated privatization and inducing foreign direct investments. The result of the second stage of privatization was remarkable in that

together with Fiat, the German Volkswagen, the Korean Daewo(大宇), and the American GM, began to build new assemblies and employ skilled workers.

GM's strategy for entering CEE with acquisition and greenfield investment proved unsatisfactory, which invited discontent, to be precise irritation, of the government. Daewoo, on the other hand, showed greater willingness and eagerness to gain entry into Poland. (Tulder and Ruigrok, 25, 35-36, 62; Worrall *et als*, 12)).

Polish auto industry, however, failed to make the same degree of success as Czechish industry, mainly because of the stagnation of Fiat and insolvency of Daewo in 1999. Daewoo acquired 61 % share in FSO in 1995 after taking on a joint venture of PSA and FSO. (Tulder and Ruigrok, 32, 62)

In the beginning of 21<sup>st</sup> century, Fiat transferred the production of new Panda to Poland, and Opel under the umbrella of GM, consigned the production of new cars to Poland. These new trend helped to activate and recover the automotive industry especially after gaining membership of the EU, leading to produce million vehicles in 2009. (Toporowski, 25).

Due to the recovery, Poland has become the second largest manufacturer of vehicles in Central and Eastern countries after the Czech Republic, and the value of car exports occupied 16 % of all Polish export, accounting for 4 % of GDP. (Bulinski, 1).

Along with the flowering of finished car production, the subsector of car manufacturing – car component production – has developed remarkably. Poland is an influential producer of car parts, mainly power train (engine and transmission). Each global parent company; Fiat, VW, Toyota, founded subsidiaries to procure car parts. Subsidiaries of Toyota produce engines installed to Toyota, Peugeot, Citroën, and the Volkswagen plant manufactures diesel engines for VW, Audi, Seat, and Škoda. (Bulinski, 2). Poland has become the biggest car component supplier in the region. More than half of Poland's automotive revenue comes from car component sales (EY, Poland, 1).

With its long relationships with Polish automotive industry, the Italian Fiat began to operate engine production in 1972, and set up a joint venture with GM in 2002 with the aim of producing car engines. "The major area of focus in Poland are engines." (Frost and Sullivan, 15)

Toyota considers Poland as an important base for power train operation, and founded TMMP (Toyota Motor Manufacturing Poland) and TMIP (Toyota Motor Industries Poland). TMMP, a joint venture with French PSA, makes a production of gasoline engines, which are exported to Czech. TMIP is specialized in manufacturing diesel engines.

Volkswagen started to produce engines in 1998 in Poland, which are exported not only to Europe but to North and South America. The wide range of ports of export indicates an important role Poland plays in car component production. The engines manufactured by Volkswagen are adopted to commercial cars of VW brand.

The presence of global foreign car makers in Poland shows that Polish car industry has played a vital role of an operative base as a foreign power train activity. The number of car component production has steadily growing. Since the transition of government in 1989, many foreign corporations has come

to seek entry into Poland to produce various kinds of components, which are planned to export into Europe, North America, and Asian countries. Out of 620 auto component makers, some 250 corporate subsidiaries to parent companies are managed by foreign capitals, which shows increasing influx of investment from abroad in Polish car component makers. (Hosoya, 2009, 101, fn 8).

### **2-2-b**

In the socialist era, Poland had legislated tax holidays extending two to six years to foreign investors. But the 1993 tax reform cancelled the special tax incentive. (Sedmihradsky and Klazar, 1). The government replaced the former tax policy with establishing the Special Economic Zones (SEZ) in 1995.

The specific feature of Polish investment policy lies in introduction of SEZs, which is one of the preferential treatments to foreign investors. (Investment, 5; Bulinski, 8; Sedmihradsky and Klazar, 3). The special Economic Zones expand into 14 districts of Poland, constituting an area of over 12,531 ha. (Warsaw Business Journal's, 5; Koyama, 6-7)

The preferential treatments include reduction and exemption from corporate taxes by 50 percent of the amount of investment, preferential to real estate acquisition taxes, and granting a subsidy to employers. In taking advantage of these preferential measures, utilizers must meet necessary and sufficient conditions stipulated by the government; amount of investment, the number of workers they employ, and terms of operating business for at least five years. (EY, 9; Sedmihradsky, 3; Koyama, 6-7).

Besides taking advantage of SEZs, companies can utilize European Union Fund, which the government is eager to enhance. For the years 2007-20013, Poland has received enormous amount of €67 billion from European Fund, which was one of the biggest benefits given by the EU accession. (Bullinski, 7; PISM, 2). In 2009, Poland attracted the greatest amount of FDI inflow in CEE. (PricewaterHouse, 3) Polish government has adopted all necessary measures to develop economy and provided full support to invite foreign car makers.

Owing to the government active participation in economy and influx of foreign investment in automotive industry, Poland established a stable position as an exporting base for automobiles and their related components. As of 2012, FDI in the automotive sector accounts for "17 % of all foreign funds invested in the Polish manufacturing industries". (EMIS, 13).

### **2-3-a Hungary**

Unlike the Czech Republic or Poland, Hungary had practically no preceding history of auto-manufacturing except bus and truck production. (Antalóczy and Sass, 16; Pavlínek, 2001, 621.) Bus manufacturing had started as early as in 1925, and under the division of labor within the CMEA (Council for Mutual Economic Assistance) enforced from 1949 to 1991, Hungary became the major bus producer and exporter in the Communist block. Hungarian Investment and Trade Agency reports that "between 1975 and 1990, 13,5000 coaches were built annually, making Ikarus the largest bus manufacturing

company in Europe”. (HITA, 4).

Under the system of division of labor and central planning of socialist regime, Hungary was not allowed to develop its own passenger car production. (Pavlinek, 2001, 616). Hungary had played the role of supplier of car components before the political transition. Raba and Ikarus, the two ingenious manufactures, had produced buses and trucks, shifted to making car component production – mainly axles and chassis, exporting to the EU, the Commonwealth of Independent States(CIA), and the US.(EY, Hungary, 1).

The history of pre-transition period indicates that the influx of foreign direct investment and the appearance of global auto makers were considered to herald an new era of automotive industry in Hungary. (Antaloczy and Sass, 16) The Japanese Suzuki, The German Audi, and the American Opel (G. M.) launched their production in the early 90s with substantial assistance from Hungarian government. (HITA, 5). The end result is shown in the report by ICEG European Center saying that, “The Hungarian automotive sector is highly dominated by foreign owned affiliates of well-known multinational companies”.(Antaloczy and Sass, 21). Owing to the presence of these foreign car makers, “(the) automotive industry produced a value of EUR 17.8 billion in 2013, which is close to 20% of the entire manufacturing industry output....The automotive industry accounts for 10% of the gross domestic product”. (The Canadian Trade Commissioner Service, 3).

The Japanese Suzuki, one of the first companies making inroads into Hungarian automotive industry, has been playing a vital role in Hungarian car manufacturing, and contributed greatly to Hungarian economy.

After six years’ negotiation with Hungarian government, Suzuki founded Magyar Suzuki (MS) in 1991, two years after the political transition into democracy, and began to produce a small car, Swift, in 1992. (Tulder and Ruigrok, 34-35). Suzuki has concentrated vehicle manufacturing in Europe on Magyar Suzuki, which produces 300,000 cars yearly. (The Canadian Trade Commissioner Service, 4). Another scheme Suzuki took was transferring the car production on commission in Spain and Poland into Magyar Suzuki. Due to the integration of car manufacturing, nearly 100 % of the Suzuki’s vehicles produced in Europe are of Hungarian make. Suzuki’s conspicuous success is achieved by fostering a local supply base, and developing supplier’s technical level. (Antaloczy and Sass, 16; The Canadian Trade Commissioner Service, 5). Suzuki has procured reliable and low-cost car parts through its own subsidiary. (Radosevic *et al.*, 31).

The German Audi, a subsidiary company of Volkswagen, founded Audi Hungarian Motoren Kft (AHMK), an affiliate of Audi, in 1993. AHMK began its operation by manufacturing engines, and later started to produce finished cars, whose number of production amounts to 70,000 yearly. (HITA, 6-7).

The number of finished cars manufactured by AHMK is so small, but to the contrary, that of engines reaches 1.9 million per year. AHMK has been producing whole engines installed to all the Audi brand vehicles. Accordingly, AHMK occupies an important place in Hungarian auto sector. (Tulder and Ruigrok, 44).

Opel (G. M.) established its car assembling plant in Szentgotthard in 1991, but later shifted into manufacturing auto components, especially car engines. Owing to the global economic and financial crisis in the 2000s, GM abandoned Suzuki as potential acquisition. (UNIDO, 17).

In 2008, Mercedes Benz (Daimler-Benz) reached the agreement with the Hungarian government to build a new factory with the investment of €800 mm, which is considered to be “one of the greatest greenfield investments in the history of Hungary”. (HITA, 9). In 2013, the first sporting car manufactured in Hungary was sent to market by Mercedes Benz. (PISM, 1).

Besides foreign-owned affiliate companies of car parts production, Hungary has ingenious car manufacturers, Ikarus and Raba, which produce mainly car components and accessories. “Auto parts production has become a driving force of the automotive industry in Hungary”. (Tirpak, 9; Antalóczy and Sass, 16).

The car component companies are categorized into three, the first are the affiliates to the big three (Suzuki, Opel, Audi), whose full ownership are held by the parent companies. (Iwasaki, 4, 6). The second consists of global enterprises such as Bosch, Denso, Lear, and the third companies managed by Hungarians, producing both for Hungarian car makers and foreign manufacturers. (Antalóczy and Sass, 21). The stable foundation of car components suppliers is the driving force of the Hungarian automotive industry and boosts exports.

In terms of tyre production, Hungary will soon become a major influential country, and 12 of one hundred automobiles in the world are expected to ride on tires produced in Hungary. (Hungarian Investment Promotion Agency, 2). Major global tire makers are swarmed in Hungary; the French Michelin, the Japanese Bridgestone, the Korean Hankook, and the Indian Apollo set up new factories in 2011. (The Canadian Trade Commissioner Service, 3 ~ 6).

### **2-3-b**

In Hungarian automotive industry, not *brownfield* investment (follow-up), but *greenfield* investment (set-up) was implemented because of the absence of the tradition of passenger car production. Foreign car manufacturers found it more beneficial to open new factories under their own design and control, which led them to prefer greenfield. Another reason for choosing greenfield investment was that the European auto makers considered it more advantageous economically and geographically to invest in Poland and the Czech Republic. The two countries are located more adjacent to the big market, EU. (Bradshaw, 15). In the face of the geographically unfavorable situation, Hungarian government, therefore, was forced to give a full support to global car makers setting up new factories. SHMK is considered to be a case in point. SHMK was established as a joint venture of Suzuki with Hungarian government. Governmental staff and Hungarians participated in the management of the joint enterprise. SHMK is regarded as the typical example of government supported investment, which is unique to Hungary.

Government direct intervention to attract foreign investors was also exercised in inducing Audi. The

German auto manufacturer was granted tax hikes, which was considered to be a necessary procedure to stabilize public finances by the government. (Tirpak, 11).

The socialist government had began to loosen the limitation of entry of foreign companies in the 1980s, and admitted the influx of western investment. To enhance foreign investment, the regime proffered a lower tax rate for the ingenious companies. (Sedmihradsky and Klazar, 10). This system was cancelled later, but other substitute preferential measures were taken to admit tax reduction.

After the political change, the trend of taking preferential policy toward foreign direct investment was continued. Hungary is considered to be the only country among the four Visegrad countries to enact a special law on foreign companies. (Sedmihradsky and Klazar, 4). According to the Development Tax Allowance, amount of subsidy extends to up to 80 % exemption of the corporate tax. (HITA, 13). The preferential measure is taken due to the fact that the government designated the automotive industry as priority corporation.

Including the tax allowance, various incentives are offered by the government ranging from training subsidy to job-creation subsidies, from business park to personal-type subsidies. (HITA, 13-14; Radosevic, 35). The government intervention is implemented within the form of legislature, which is highly detailed and complicated. The respective items observed by the investors are listed in Allens and Overy. (31-35).

#### **2-4-a Slovakia:**

Slovakia was united with Czech and formed a new republic under the name of the Czechoslovak Socialist Republic in 1960. After the velvet Revolution in 1989, Slovakia separated from the Czech Republic and established itself as an independent republic in 1993. The economic disparity between the twin countries led to the dissolution of their national unity. The Slovakia Republic, with only 5 million people, far behind the Czech Republic in economy and industrial development, was compelled to embark on new joint enterprises with foreign makers, and have recourse to inducing foreign direct investments to automobile industry.

The government's efforts and enthusiasm paid off – three world big manufacturers set up production plants in Slovakia. Volkswagen established in Bratislava in 1991, PSA Peugeot Citroën in Trnava in 2003, Korean Kia (起亜) Motors in Zilina in 2004. The total number of vehicles produced annually by these makers has reached a million, which makes Slovakia the world 18<sup>th</sup> biggest auto manufacturer at present (7<sup>th</sup> in Europe). The decision of Jaguar Land Rover to make inroads into Slovakia in 2018 will accelerate the development.

Besides vehicle production, Slovakia plays an important role in automotive components manufacturing. The flourishing of the car parts industry is caused by the rapid and stable development of finished car industry. Many car component producers have become subsidiaries to the three major global automobile makers.

Volkswagen in Bratislava produced 5 million transmissions and 200 million components since its

foundation. (Frank, 35). The French PSA Peugeot Citroën in Trnava produced 250,000 vehicles in 2010. In 2011, the Korean KIA Motors produced 359,000 car engines along with more than 252, 000 finished cars. (*ibid.*, 36).

Besides these affiliated component makers of big three, other big car parts' companies such as ZF, Bosch, Lear, ArvinMeritor, Visteon, Valeo and so on, operate as suppliers. (*ibid.*, 41).

#### **2-4-b**

Though comparatively late in starting automobile industry among the Central and East European countries, Slovakia succeeded in developing into a world major car exporting country. Nearly 100 % of finished cars are exported to about 100 countries, ranging from Europe to North America, from Russia to Asian countries. The remarkable success was mainly caused by utilizing foreign direct investments.

After the division of the coalition in 2003, the sister country, the Czech Republic, inherited virtually all of the automobile facilities jointly owned by the Czechoslovakia, and privatized Škoda, the oldest car maker in Europe. The Czech Republic, in addition, succeeded in inviting Volkswagen to invest in Škoda. Volkswagen utilized existing facility and workforce in the Czech Republic.

Without these favorable conditions afforded to the Czech Republic, Slovakia was forced to start the automobile industry from scratch. The government recognized the importance of automotive industry to enhance the development of economy and industry. The Slovakian government decided to concentrate its scanty capital and workforce on vehicle production. (Radosevic *et al.*, 34).

The Mečiar government negotiated with VW, granting tax incentives amounting €31.2 million in 1999. (The World Bank, 20). The presence of Volkswagen in Slovakia is outstanding, accounting for nearly 20 % of export in 2004 which amounted to € 4.5 billion. (JETRO, 2005, 8). Despite the entry of Volkswagen into Slovakia and 'Mečiar's economic miracle' in the latter half of the 1990s, economic situation began to worsen at the end of the 90s. The European-oriented Dzurinda government, therefore, implemented monetary and industrial reforms. Proceeding the privatization of state-owned companies and reforming the taxation system counted most among them. (The World Bank, 18).

In 2004, the government decided to enact another very unique and effective policy, namely, flat tax system, which stipulates that personal and corporate income tax rate should be equally set at 19 percent, unified with VAT rate. (The World Bank, 25; JETRO, 2005, 7). The simple and transparent system of taxing was welcomed by foreign investors. Among the disadvantages or risks investors would fear to suffer was corruption including bribery, which blossomed in the CEE countries. (Rechnitzer, 78 ~ 79). High degree of transparency, accountability and flexibility are the key factors to induce foreign investment. (Sedmíhradský and Klazar, 1). The simplicity and transparency in terms of taxation implemented by the government, therefore, was highly evaluated by potential investor companies. With the capital flowing into Slovakia, infrastructure and level of higher education were greatly improved. PSA and Kia followed Volkswagen utilizing the new tax policy.

Radosevic and Rozeik ascribes the victory of Slovakia against Poland in the bidding race for

hosting PSA Peugeot and the Korean Kia partly to Polish complicated and unpredictable tax system. (Radosevic and Rozeik, 35; JETRO, 2005, 20). The government strategy worked well and came to fruition.

Thanks to these government assistance, in 2010, automotive industry became the largest and most vital sector of industry in Slovakia, accounting for nearly 33 % of GDP. (The World Bank, 31).

### **Chapter 3. Conclusion**

The analysis we have conducted in this paper reveals the distinct differences among the four Visegrad countries both in production patterns of vehicles and government intervention. After the political change, what was urgently needed was to develop economy and industry through privatization of state-owned facilities, especially automotive sectors. Hungary enhanced the privatization through direct selling out, Poland Management Employee Buy-Out (MEBO), the Czech Republic and Slovakia voucher system. (Lavigne, 164-165, 168, 170-171; Tomimori, 42-43, 47-49; Hagihara, 96).

Along with privatization, the CEE countries made enormous efforts to attract global car manufacturers to enhance the economic development. In the Czech Republic, the joint ventures with the two world giant car makers, Volkswagen and Toyota, have made a remarkable success. The number of cars assembled by the twin companies amounts to over million annually, ranked 8<sup>th</sup> in the world. "Success breeds success", reports some agency. (Czechinvest, 1).

The reasons for the success can be ascribed to the century-long tradition of automotive production, proximity to European market, and governmental policy of inducing foreign direct investment.

Poland has established itself as an import base for car components. Nearly 20 million engines are exported to more than 100 countries, which makes Poland the 5<sup>th</sup> biggest country in terms of car parts production.

The demographic factor has contributed greatly to the Polish success, along with the government assistance. The creation of Special Economic Zones, granting tax exemption to foreign firms, characterizes the Polish government scheme for activating industry and ameliorating economy.

Hungary, with scanty record of car manufacturing except bus production and smaller number of population, was forced to start the automotive industry from scratch after the political transition. Hungarian government attracted foreign automotive companies, aiming at making direct investment in automotive industry and intending to set up factories in Hungary. Suzuki met the requirement. The Japanese compact car maker has been manufacturing nearly 100 % of its vehicles produced in Europe in Hungary, whose products are furnished with parts manufactured in its own component factories.

Together with foreign-owned car manufacturers, Hungary has a large numbers of car component producers, because lack of tradition of passenger car production led Hungary to resort to car parts production in renovating economy. (Tirpak, 9). Fortunately, the adjacent countries, Germany, the Czech Republic and Slovakia, need just-in-time delivery of components from Hungary.

History, demographic elements and governmental policy are key elements in the development of

automotive industry in Hungary as well as Poland.

Slovakia and the Czech Republic are specialized in producing finished vehicles and the combined number of products accounted for 65 % of the total car production of Central and Eastern Europe by 2010. (Tirpak, 3). Though started from scratch, it didn't take long before Slovakia became a major country in terms of automobile industry, a success called a 'Mačiar economic miracle'. (The World Bank, 15).

The success will be mainly attributed to the practical and effective initiative the Slovakia government undertook in negotiating with foreign car makers. The president Dzurinda played the role of a tough negotiator with foreign applicants for investment, French PSA and Korean Kia in 2002. Both car manufacturers were considering entry into EU. At first, Slovakia had the least expectancy in EU, but due to 'the overall financial incentives granted to the French investor', attracted the company. Under highly confidential negotiation, Kia followed the same negotiating process, and given an unprecedented favorable incentives, decided to enter into Slovakia. The advantageous conditions granted to Kia invited harsh criticism, but government wielded a strong initiative and controlled the opposition. (The World Bank, 29-30).

The three basic elements of industrial development, namely land, labor, and capital, along with tradition and government assistance, have been closely intertwined with each other. (Blomstrom and Kokko, 9. Together with respective strategy of multi-national car makers, (Tulder and Ruigrok, 4-5), the differences in the development of automotive industry of this region, therefore, came to be formed by the emphasis every government laid on some of these developing elements. Czech utilized the long tradition of car production, Poland the greater number of population with higher skills and lower wages, Hungary inducing the Japanese Suzuki, Slovakia greenfield investment. (The World Bank, 30).

Government assistance held a key to induce foreign direct investment, incentive to activate automotive industry. As explained before, foreign direct investments are generally divided into *greenfield* and *brownfield*. The former is labelled as foreign acquisition, the latter foreign start-ups. (Rooij, 1). Hungary and Slovakia implemented greenfield investment mainly because of their scanty tradition of car industry. Both countries had to start from the very beginning. While with long tradition of auto technology, the Czech Republic and Poland adopted brownfield investment. Companies entering into the two targeted countries preferred to utilize the existing facilities and workforce.

The analysis conducted above indicates that technology is greatly related with history, demography, geography, and politics. (Rechnitzer and Toth, 75; Worrall *et als*, 2). This paper has made clearer the complex relationships between them.

\*This is a revised English version of my first half of the master's thesis presented at the Department of Economics at Kobe University in 2011. Original title is Chutouou ni okeru jidoushasangyou no gaikoku chokusetsu tousi (FDI in the Automotive Industry of the CEE countries).

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APPENDIX

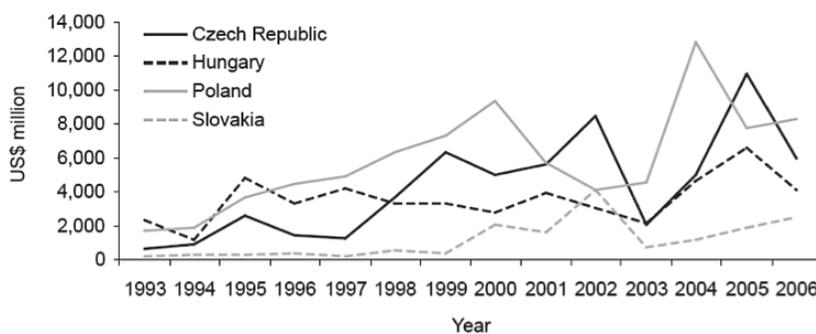
Table 1: FDI Stocks and Share of Automotive Industry, 2000

FDI Stocks, 2000 in USD

Country	FDI Stocks, 2000 in USD			Share of motor vehicles		
	Total	Manufacturing	Motor vehicles	in total	in manufacturing	
Poland	34227	13210	2070	6.0%	15.7%	
Czech R	21644	8256	1371	6.3%	16.6%	
Hungary*	10403	3830	370	3.6%	9.7%	
Slovenia	2809	1141	132	4.7%	11.5%	
Lithuania**	2334	672	46	2.0%	6.8%	
Bulgaria	21640	1122	4	0.0%	0.4%	
Latvia*	2465	388	0	0.0%	0.1%	

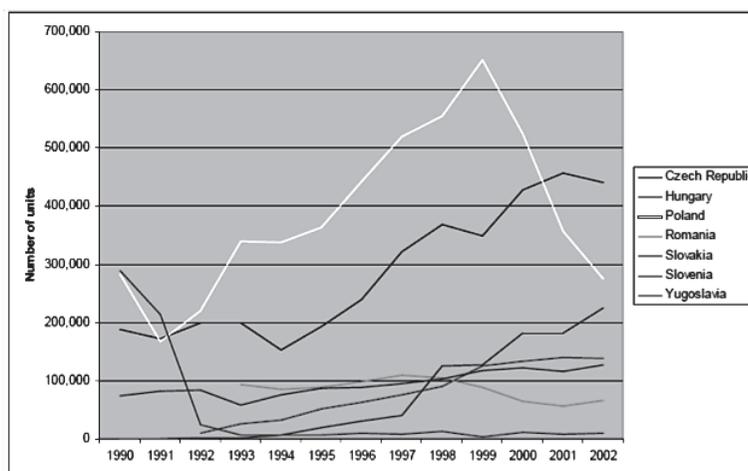
(Source: Radosevic *et al.*, 25)

Figure 1: Foreign Direct Investment in CEE (flow), 1993-2006

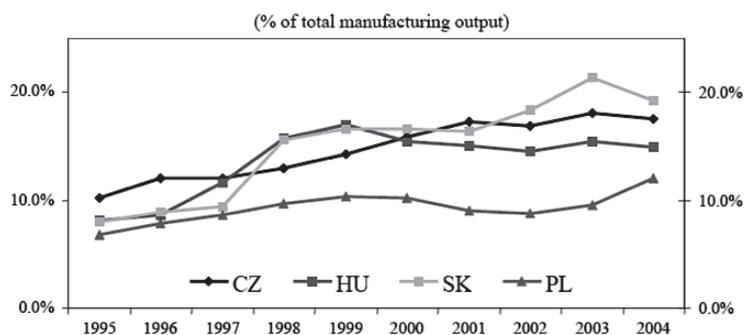


(Source: The World Bank, 19)

Figure 2: Car Production in CEE



(Source: Radosevic *et al.*, 14)

**Figure 3: Manufacture of transport equipment\***

\* Manufacture of transport equipment (DM), NACE classification.

(Source: Tirpak, 3)

**Table 2: Major Car Manufacturing Investments in Central Europe**

Country	Investor	Location	Start Date	Type of investment/ activity	Products	Volume
Czech Republic	Volkswagen/Škoda	Mladá Boleslav, Kvasnice, Vrchlaby	1991	Brownfield	Octavia Fabia Roomster Superb	450,000*
	TPCA	Kolín	2002	Greenfield	Peugeot 107 Toyota Aygo Citroen C1	300,000*
	Hyundai	Nošovice	2006	Greenfield	i30	300,000*
Hungary	Suzuki	Esztergom	1992	Greenfield	Ignis Justy Swift SX4 Fiat Sedici	300,000*
	Audi (VW)	Gyor	1992	Greenfield	TT	40,000*
Poland	Fiat	Bielsko-Biala	1991	Brownfield	Seicento Panda	250,000*
	Volkswagen	Poznan	1993	N/A	Transporter Caddy	50,000*
	Daewoo/FSO	Warsaw	1996	Brownfield	Nubira Matiz	35,000
	Opel (GM)	Gliwice	1998	Greenfield	Agila Astra Zafira Wagon R+	120,000*
Slovak Republic	Volkswagen	Bratislava	1991	Brownfield	Polo Touareg Audi Q7 Porsche Cayenne (assembled in Leipzig)	300,000*
	PSA	Trnava	2003	Greenfield	207	450,000*
	Kia	Žilina	2004	Greenfield	Cee'd Sportage	300,000*

(Source: The World Bank, 13)

## 中・東欧における自動車産業の展開と政策関与の変遷： チェコ、ポーランド、ハンガリー、スロバキアにおける事例研究

岡 崎 拓

1989年のビロード革命による体制移行後、旧共産圏の中・東欧諸国において経済復興が喫緊の課題であった。この地域の大国であるチェコ、ポーランド、ハンガリー、スロバキア、4か国は、1世紀以上に亘る自動車産業の伝統の下に、国家の経済、産業復興の基幹に自動車産業を置いた。

自動車産業復興の鍵は不足する資本を補うべき外国投資の呼び込みであり、これら4か国の政府は、独自の優遇策を講じて外国資本の導入を目指し、産業振興を図った。その結果、自動車生産の歴史と、政府の政策関与の異同により、各国特有の形態の自動車産業を形成させた。

19世紀末よりの長い自動車生産の歴史を有するチェコは、国営のショコダ社をドイツのフォルクス・ワーゲン社に売却して民営化するとともに、日本のトヨタ社、韓国の起亜社（現代傘下）、の進出をも実現させて、今や世界第8位の自動車生産量を誇っている。

3800万という中・東欧最大の人口を擁するポーランドは、完成車生産とともに部品製造にも力点を置き、海外投資呼び込みのために国内14地域に経済特区を設定して、振興を図った。

ハンガリーはコメコン体制下のトラック、バス製造を除いて乗用車生産の歴史が無く、体制移行後、日本のスズキ、ドイツのアウディ（VW）、アメリカのオペル（GM傘下）、の新規参入を積極的に図り、自動車産業を発展させるとともに、部品製造を重点とする政策を取った。

スロバキアは1993年にチェコとの連邦を解消し独立国となった時点で、ショコダ社を含め、ほぼ全ての自動車産業がチェコ側に移行した。それゆえ、フォルクス・ワーゲン、プジョーの新規参入により振興を進め、今年年間80万台の生産量を誇るとともに、関税、法人税を含め各種税率を一律に19%に設定して、収税の簡素化と透明性を高める独特の政策を推進して産業振興を図っている。

本稿は体制移行後、中・東欧主要4か国においてどのように自動車産業が発展し、また政府の関与がいかようになされたのかをテーマとするものである。自動車産業の進展には、テクノロジーの歴史、立地条件、労働力、外国資本の導入、等の要素が不可欠であり、この基本条件の差が各国独自の自動車産業形成に繋がっている。本稿はその基本の与条件と政府関与の関連解明を目的とする。

