

The Evolution of Passenger Car Production and its Impact on Urban Development in South-Eastern Europe

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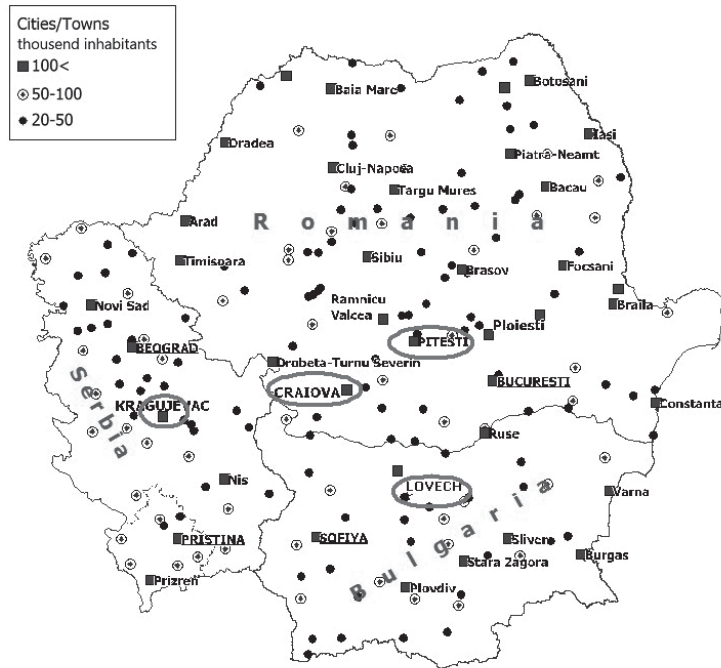
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ABSTRACT: The current study investigates the vehicle industry of former South-eastern European socialist states (Serbia, Romania and Bulgaria) in order to determine the role of this sector in the evolution of industrial areas of the macro-region before and following the regime change. For the purpose of this objective, the study seeks to detect where and under what circumstances the vehicle industry emerged and where its main centres are located. These centres can be called traditional in certain cases as their establishment dates back to the beginning of the 20th century, in other cases they were created to ensure motor vehicle supply during the second half of the 20th century. The various development paths of passenger car manufacturing will be compared in the three countries along with the specifics of cities hosting this industry.

Introduction

The objective of the current study is to present the evolution of passenger car manufacturing in three South-eastern European countries, Romania, Bulgaria and Serbia and the impact of vehicle industrial development on the development of the specific cities. For this purpose, we included the most prominent automotive cities in our case studies which are currently (2014) hosting car assembling facilities. These are the cities of Pitesti and Craiova in Romania, Kragujevac in Serbia and Lovech in Bulgaria (Figure 1).

Figure 1: The four automotive industrial clusters included in the case study



Source: Edited by Tamás Hardi.

The choice of our topic is justified by the scarcity of successful rural centres in Central and South-eastern European countries outside the capital cities. And even among these, the number of cities where settlement success is based on the productive industrial sector is very low. The automotive industry is among the most prominent sectors and is typically the leading sector which determines the spectacular development of rural centers. The common feature of the examined cities is their relative distance (120 to 200 kms) from the capital cities and a relatively good accessibility despite being situated in rural areas. Their development has been closely intertwined with this sector and currently, the transformation of the structure of production is giving these towns a new dynamism. This new dynamism does not only impact the respective town but its immediate environment as well, raising it beyond the general development level of the region, and placing these towns among the top migration destinations of their countries. The nature of production is obviously an important differentiating factor since there is a variety of development levels ranging from the simple assembling plant to areas integrating research and development as well, which determines these towns' capacity of integration into national, European or global networks.

It is evident that various car-manufacturing plants found these cities immediately after the construction of the initial industrial capacities during the first half of the 20th century or the 1950s. A part of their investments proved to be viable even amidst socialist conditions, and apart from Chinese Great Wall Motors or the South-Korean Daewoo company, the same plants returned to invest in areas post-regime change where they had

already achieved a certain success. Their main objectives are obviously quite different in the present era. During the sixties–nineties, cars were manufactured in small series to serve the needs of national markets in the framework of a "shortage economy" and strict customs borders (and for export to a smaller extent), while currently, the greater share serves mostly export purposes. This shift can only partially be attributed to the regime change and the economic restructuring processes occurring in the respective countries. The general transformation of the geographical characteristics of the automotive industry figures also among the explanatory factors behind this change (Lung 2004).

The Past Politico-Economic Orientation of the Examined States

Bulgaria, Romania and Serbia are listed among those countries which belong to the group of former Central and South-eastern European socialist states. Besides their numerous economic similarities, several disparities can also be detected among the group of Central European states (GDR, Poland, Czech Republic and Hungary) and the three South-eastern states. In addition, the latter three are also quite heterogenous from multiple aspects.

If we examine the economic development of the three designated states, we must not neglect mentioning their historical past which was highly responsible for their backwardness compared with the rest of the Central European states. All of the three countries were submitted to the Ottoman Empire during the 19th century as a part of the empire, (the territory of Serbia and Bulgaria) and as feudal areas (Romanian principalities). After having experienced various levels of autonomy, Romania and Serbia finally became acknowledged sovereign states in 1878 and Bulgaria in 1908. Industrial development emerged in the territories submitted to the Ottoman Empire only belatedly and in small scales. In the case of each Central and South-eastern European state, industry and mining had hardly more than eight mln employees in 1889, and 85 per cent of them were concentrated in three northern states, the territory of the future GDR, the Czech Republic and Poland (Enyedi 1978). Apart from the GDR, these territories once constituted the core industrial areas of the Austro-Hungarian Monarchy which produced 2/3 of the industrial output of the Empire of the period. In contrast, the remaining territories of the Monarchy and the areas belonging to the Ottoman Empire until the 19th century were predominantly rural, making agriculture the prominent sector (Berend – Ránki 1983).

In South-eastern Europe during the Socialist era, post-World War II, the rate of industrial employment was still increasing. Heavy industry played a dominant role in this, which, particularly in the countries of the Balkans and Romania, contributed greatly to massive industrial decentralization, a large number of industrial centres were created, the majority of which were lacking economic foundations. Industrialisation achieved significant results in the area of employment, since a growing proportion of employees became industrial employees in previously predominantly agricultural areas as well, and during the regime change, in the bulk of the Romanian counties, industry concentrated over 50 per cent of the employees, while in poorer areas of Yugoslavia, the weight of the secondary sector was equally significant (Lux 2010). In certain cases, particularly since the end of the 1960s, governments have

been making efforts to decentralise industry and locate it outside large centres, which they were able to accomplish in the area of the manufacturing of consumption goods par excellence.

Growth was primarily based on the development of heavy industrial sectors, mining, construction and textile industry, and not so much on the extension of machinery industry. Machinery industry tended to demonstrate growth in traditional regions, with 1 million employees in the 1970s in the GDR, Poland and the Czech Republic, respectively, half a million in Hungary and Romania, and 350–400 thousand in Bulgaria and Yugoslavia (Enyedi 1978).

The geopolitical and the resulting geoeconomic orientation of the three examined states was quite heterogeneous and differed from that of Central European states as well. Romania had constructed a strongly nationalistic/chauvinistic socialist system by the seventies with a solid one-person tyranny which had maintained its power until the regime change. Ceauşescu's regime distanced itself to a certain degree from the Soviet Union through pursuing nonaligned politics, and the necessity of economic self-sustainment was also a priority. Despite its socialist system, the geopolitical orientation of Yugoslavia was not Soviet-friendly either, constituting an intermediate structure between the two great world orders. Western relations, licences soon emerged in its economy, and besides showing a general openness towards western cooperations, it cultivated vigorous relationships with the developing world as well, being a leader of the movement of "non-committed countries". The economy and politics of Bulgaria were attached with a thousand ties to the Soviet Union, its relationships were oriented dominantly towards this direction. Romania and Bulgaria were members of Comecon, while the unique position of Yugoslavia was expressed by its status of observer state in this economic cooperation, and later on, it joined the organisation, though not as a full member. The economies of socialist states would theoretically have been integrated by Comecon, however, economic cooperation among individual countries remained quite modest. Belonging to the common economic space meant primarily a radial, Soviet-oriented foreign economic policy, commerce within members was meagre. Specialisation began at the level of Comecon, the production of certain products was assigned to individual member states, however, the member states accepted these tasks only in certain cases. Comecon did not become a supra-national organisation, member states adopted and implemented only consensus-based decisions (Honvári 2005).

The Emergence of Car-Manufacturing in South-Eastern European States

The Beginning

The history of car manufacturing in the three countries can be divided into four distinct periods. The beginnings date back to the period between the two World Wars, when the young states established motor assembly plants primarily to serve the needs of the army, producing aircraft engines, aircrafts, and lorries in some cases. A peculiarity is that

cooperation emerged even within the macro-region, since lorry licences originated from the Czech Republic, while airplane models came from Poland. Romania and Yugoslavia, counted among the winners of World War I, were already able to start manufacturing in the twenties. Another peculiarity is that the first Eastern European car assembly production line was established in Romania. Firstly, Ford Motor Company opened a sales company in Romania in 1931, and later, in collaboration with the Romanian government, it constructed a modern plant in the Floreasca district of Bucharest in 1935 employing a hundred workers and suitable for the assembly of 2,500 cars and trucks annually (Istoria Ford... n.d.).

In Yugoslavia, the first engine factory was established in 1927 in Rakovica. Engines were produced based on the English (Bristol) licence. Road motor vehicle production was launched on the eve of World War II. The production of a 2.5-ton truck named Praga RN8 began in 1938. Its licence was purchased from the Czech Republic, and initially, the components produced there were transported to Yugoslavia where they were assembled. In-house production began already in the 1940s. Under German occupation, war production became the main profile, aircraft engines were produced for the most part. During the post-war period, production was re-launched in 1947, but later on, production was transferred to Priboj, while production began in Slovenia on the basis of this licence where TAM factory in Maribor became the primary producer of trucks and buses in Yugoslavia (Benedek – Dudás 1989). Passenger car production was launched in Kragujevac, where Vojnotehnički zavod represented the military industry of Serbia prior to the eruption of World War II. The first cars were produced in the city in 1939.

Bulgaria as a defeated state of the World War I, was able to establish an airplane engine production base only in 1941, after a 20-year prohibition declared by the 1919 Neuilly Treaty. The Bulgarian air force command made a decision of launching a center for design and production of airplanes, away from the capital Sofia, matching the highest European standards of that time. Thus, during the course of World War II, the State Airplane Factory was opened in 1941 in the town of Lovech. The buildings of the factory were designed and constructed by Polish engineers from the then existing Polish aerospace manufacturer PZL. Between 1941 and 1954 when the production of airplanes in the State Airplane Factory in Lovech was terminated, more than 450 airplanes were made there (Karlov 2008). (The manufacturing of buses could be initiated as early as 1927 in Botvegrad. The production continued in small series even following nationalisation until the closing of the factory in 1999.)

The Production of Passenger Cars During the Socialist Era

The second long era is associated with the generalisation of the Socialist politico-economic system in the 1950s. As we have already mentioned, there have been massive developments in heavy industry and machine-building, driven by an unconcealed motive of self-reliance. Car production occupies a modest place within the machine building industry. Car production was commenced primarily by traditional manufacturers during the beginning of the 1950s. Only five types of passenger vehicles existed during that time, three German, one Polish, one Czech, while in South-eastern European countries, their popularity remained low. The reason behind the relatively low significance of the automotive industry might

also be that in a socialist system of society, the spatial distribution and development of jobs and housing units was less dependent on individual mobility and showed a higher preference towards more efficient means of public transportation, and all this, combined with an economic structure based on large companies, meant that railway, railway vehicle production, lorry and bus manufacturing were prioritised. Even though the major share of the passenger car market was dominated by Soviet producers, the demands of industry and the mobility demands of citizens could not be satisfied by Soviet export alone, since not only the economy, but citizens were also lacking these instruments, and therefore, states strived to create their own production capacities in these segments as well, so from the end of the fifties, production could finally be launched in various countries.

Production was organised on heterogeneous bases in East-Central European and Balkan countries (based on Radosevic – Rozeik 2005 and Tirpak 2006 with some refinements):

- Car manufacturing based on own technology and development, and traditional car manufacturing relying on methods inherited from the era before World War II (Czech Republic, GDR, and to a certain degree, Hungary),
- on the basis of Soviet licences (Poland, Bulgaria),
- production and further development of models based on Western licences (Poland, Yugoslavia, Romania and Bulgaria),
- auto parts production without passenger car assembly capacity (Hungary, Albania).

The table below illustrates the evolution of passenger car manufacturing in Central and South-eastern European countries during the second half of the 20th century.

The number of the produced passenger cars in the states of Central and South-Eastern Europe, 1950–1990

Year	Poland	East-Germany	Yugoslavia	Romania	Bulgaria	Czechoslovakia
1950	0	7,165	0	0	0	24,463
1955	4,015	22,247	760	0	0	12,530
1960	12,863	64,071	10,461	1,200	0	56,211
1965	24,800	102,877	35,880	3,653	N/A	77,705
1970	64,200	126,611	110,709	23,604	N/A	142,856
1975	164,000	159,147	183,000	68,013	N/A	175,411
1980	351,000	176,761	255,000	88,232	15,401	183,745
1985	283,000	210,370	228,000	134,000	15,000	183,701
1990	266,000	145,000	291,724	100,000	14,641	191,233

Source: Pavlínek 2008.

We can observe that among the three examined countries, Romania and Yugoslavia could boast with remarkable passenger car manufacturing volumes that were outstanding during that era, the emphasis was on production for the domestic market, and slowly, later on, a part was reserved for export purposes as well, particularly from the Romanian production. Both states launched production with the aid of Western licences and/or investments. Bulgaria, in contrast, produced a small volume of passenger cars. Initially, it manufactured Western models in very small series, and later on, it built Moskvich cars based on Soviet licence on a permanent basis.

In Yugoslavia, passenger car manufacturing was launched in Kragujevac during the post-war period. In 1946, the name of the factory was changed to Crvena Zastava (Red Flag), and until the middle of century, the main profile was the investigation and reparation of firearms. In 1952, the decentralization of the military industry occurred in harmony with the current economic and military policy, the manufacturing of ammunition was totally terminated in Kragujevac. Consequently, for the first time in the history of the factory, its capacities were not exploited to the full and the majority of the available labour force became redundant. In 1953, the employees voted on a referendum to consecrate the largest part of the company's revenues to the development of car manufacturing. The assembly of American Jeep vehicles was launched during the very same year.

For the sake of the further development of the car factory, they selected a strategic partner, Fiat factory of Turin, and a contract was signed on the purchase of the licence in 1954. The production of Fiat models was launched following the signature of the contract partially under the Fiat trademark, and partially that of Zastava. During this period, the technological development and productivity of the Zastava factory was approximately equivalent to that of the Fiat. In 1965, the factory's capacities were enlarged to 50 000. During the same year, the foreign export of the first Zastava cars began.

(In the area of Yugoslavia, manufacturing commenced in 1954 in Slovenia, Novo Mesto, and in Bosnia and Sarajevo in 1969 in collaboration with Volkswagen. Our study, however, is concentrated on manufacturing in Serbia.)

In Romania, passenger car manufacturing began during the 1960s. In 1967, the production of Dacia passenger cars was launched under the French Renault licence in the company named Uzina de Autoturisme in Pitești-Colibași. In a similar way to the rest of the socialist companies, they manufactured the purchased models, which they further developed slightly until the regime change. The other Romanian passenger car model, Olcit, emerged in the 1980s. In this case, the French Citroen targeted the Comecon countries' market, for this purpose it entered a joint project with the Romanian government and built a car factory in Craiova where production began in 1980.

In Bulgaria, Lovech and Plovdiv were the centres of passenger car manufacturing. Passenger cars were assembled in small volumes on the basis of Western and Soviet licences. Moskvich models were assembled in the greatest number for domestic markets and the socialist countries in Lovech. Their production lasted between 1966 and 1989. In the meantime, Moskvich 408–412 models were produced. Western models were produced in smaller volumes and for a shorter period of time. In Lovech, Fiat 850 and Fiat 127 models were also constructed for a while between 1967 and 1971, in a series of a few hundred units. Passenger

car industry was established in Plovdiv as well. A peculiar feature of the Bulgarian automotive industry is that the French Alpine company producing sport cars began production in small series in 1966 in Plovdiv under the name of Bulgaralpine. Production was pursued until the end of the 1970s. The plant in Plovdiv assembled a circa 10 thousand Renault cars between 1966 and 1970 with the Bulgarrenault brand. We found that Renault outsourced production to Yugoslavia afterwards. The Bulgarian industry, in the long run and in terms of its volume, was apparently attached to the Soviet economy. Western licences played a modest role, and were present during a relatively short period of time. We believe that the main objective of Western investors, i.e. satisfying the demands of countries of the Balkans and the Near East from this area was achieved in a more flexible way through supplying them with models produced in Yugoslavian plants. The fact that following the termination of their production, models manufactured in Bulgaria appeared in Yugoslavia and were manufactured there in large volume clearly indicates this.

The Era of the Socialist Crisis and the Efforts Towards Autonomy During the Nineties

The eighties of the past century and the first half of the nineties can be classified as the third era. By this time, the drawbacks of foreign investments had become visible. The first half of this period can be described as the crisis of the socialist economy, while the first years of the nineties brought about a severe economic recession, which was aggravated by the war and civil war situation in former Yugoslavia. There has been a significant decline in the living standards of the population and the economic performance of the three countries. Either the cars produced on the basis of licences were already too expensive, or production was no longer rentable in Bulgaria due to the small series, therefore, production, and consequently, foreign licences and the produced models were not renewed and the initial relationships were terminated. States launched their indigenous passenger car development relying on former technological bases. These models were not successful, since despite their low price, they remained so-called "wildings", destined to be sold on internal markets. (Such were the Romanian Olda, Oltena models, which "originated" from the highly unsuccessful Olcit model, since no resources were available for the procurement of French components. The Bulgarian Aleko, Tavrija models were destined to be modernised versions of Moskvich, achieving a limited success, while they attempted to penetrate U.S. markets with the Yugoslavian Yugo model and its versions, nevertheless, the major share of production remained on the domestic market). These efforts to achieve autonomous automotive production and conserve existing capacities continued during the nineties, post-regime change as well, however, they did not provide export opportunities, only fulfilled domestic demand for a while (e.g. Dacia Nova), with increasing losses.

During the nineties, the total disappearance of the manufactured models was envisaged in the examined towns. Factories decreased their capacities, staff and produced significant losses. In Bulgaria, passenger car manufacturing ceased in 1989. In Serbia, the production of the Zastava factory of Kragujevac was reduced to one-tenth of its original size, and during the NATO bombardments of 1999, 160,000 m² of assembly lines were destroyed, and production was terminated.

The Era of Foreign Investments - the "Transition" in Automotive Industry

In addition to production based on licences, foreign investment and ownership were witnessed in some cases (Citroen in Craiova), yet they were never generalised nor particularly successful. The economic recession of the nineties and the unprofitable production of automotive factories necessitated the modernisation of production. The shrinking economies, the poor internal market did not constitute an attractive force for investors in automotive factories, therefore, only the experimental production of the cheapest models was undertaken initially, with considerable state ownership and public support (special exemption from duties, exemption from corporate tax), which the economic regulation under transformation could still provide, but later on, during the preparations for EU membership, these benefits were no longer applicable. In reality, the massive inflow of capital, privatisation and the manufacturing of new models could begin during the first decade of the new millennium. This is partially due to economic development, the invigoration of the market, and the EU membership Romania and Bulgaria were non-negligible factors either as attractive forces of investment. It is particularly tempting for investors outside the EU to penetrate the European market.

a) Romania

Out of the three countries, the pioneering investment originated from Daewoo in Romania, which purchased the already mentioned unsuccessful Citroen investment. The South-Korean firm acquired majority ownership of the Olcit company in 1994, which was the first East Central European investment on behalf of Daewoo. The Rodae Automobile S.A. joint venture was established through the investment in Craiova, in which S.C. Automobile Craiova S.A. became proprietor of 49 per cent of the shares. Later on, the company was named S.C. Daewoo Automobile România S.A. (DWAR). Daewoo was the chief foreign investor in Romania in 1994, and in exchange, Daewoo was granted exemption from duties for seven years and from paying corporate tax for a duration of five years. The assembly line built in Craiova had a capacity for producing 100,000 annually.

Problems with Daewoo in Craiova emerged when the company went bankrupt in August 1999 due to the South-Korean crisis (Artner et al. 2002). Daewoo was taken over by General Motors in 2002, which latter was not interested in maintaining the operation of the Romanian plant (Egeresi 2008). Eventually, S.C. Automobile Craiova S.A. purchased the 51-percent block of shares of Daewoo Motors Co. in 2006, thus it gained ownership of the entire plant in Craiova, and Daewoo models were produced until 2008 in Romania.

S.C. Automobile Craiova S.A., in which the state had a 70 per cent ownership was sold to the Ford Group, which, from among several potential acquirors, was able to purchase the factory. As a result, the factory became a member of the widespread European network of Ford, which, beforehand, had disposed of 7 assembly and 13 components manufacturing plants. One of the objectives of Ford was to construct a factory with a capacity to produce new generation cars and which is internationally competitive at the same time. The implantation of the Ford launched a process in the world of global automotive

industrial companies due to which several global companies appeared in the area as members of the network of subcontractors of Ford. Six out of the world's 50 most prominent car parts manufacturing companies established themselves in the region.

The Automotive South West Competitiveness Pole was created in 2012. The contract was signed by the founding members, *South-West Oltenia Regional Development Agency*, the Faculty of Mechanics of the University of Craiova, Ford factory and the Municipality of Craiova. During the following months, an additional 32 potential partners signalled their desire to join the pole.

Dacia factory operating in Pitesti experienced a crisis during the nineties due to which it sought a foreign partner, however, it was unable to establish an agreement with them since none of the foreign factories wished to keep the Dacia brand or the employees of Dacia. Finally, it was able to conclude an agreement with Renault in 1999. Renault gained a 51 per cent ownership in Dacia and invested 1.5 bln euros in the Romanian company (Market of... 2012). Initially the previous Dacia models were "upgraded", but later on, activities extended to the design and production of new models. The year 2004 became a milestone with the launching of the Dacia Logan model, which reformed indigenous production and achieved record sales. Several new models have been implemented since that time. Their common feature is the outstandingly advantageous price, as a result of which the brand maintained its competitiveness even amidst the economic crisis.

Approximately 60 percent of the vehicle components for Dacia models are manufactured in Romania, and five of the subcontractors are located in the Industrial Zone of Subcontractors (Zona Industrială Furnizori).

Several plants of Renault/Dacia company are located in the municipality of Mioveni in the vicinity of Pitesti as well as the logistic center of Dacia. The significance of Renault Technologie Roumanie (Romanian automotive engineering center) is outstanding, since it is the unique engineering and design center of Central Eastern Europe and the largest of its genre outside the territory of France. RTR with its circa 2,500 engineers performs mainly engineering tasks related to design and testing in Bucharest, Mioveni and Titu (Dâmbovița county).

The reemergence of Renault in Romania in 1999 initiated a clusterisation process within the automotive sector in the region. Government also contributed to this process with the launching of the CURAS program in 2003. CURAS is the abbreviated form of Clustering and Upgrading Romanian Automotive Suppliers and refers to the Romanian-Flemish cooperation which was consecrated by the partnership agreement between the Romanian Government and the Flemish CKZ Limburg (ALLANTA). The objective of the program was to establish a NGO in the proximity of Dacia-Renault factory near Pitești, which constituted the first step towards the creation of an automotive cluster in the area. Professional literature refers to Dacia Renault Cluster as a cluster characterised with the most advanced structure and most successful operation in 2011, which includes small and large firms, counselling and research companies, financial institutions and universities in its operation (Furre 2007; Guth – Cosnița 2010; Dudian 2011).

The organisation of a competitiveness pole in 2012 ensures the full exploitation of Dacia Renault Cluster. The name of the newly formed cluster is Auto Muntenia Competitiveness Pole (Act de... 2012).

b) Serbia

Within the factory of Kragujevac in Serbia, Zastava Group was restructured in 2001 in the aftermath of the 1999 bombardments, the various divisions were separated and the manufacturing of passenger car and lorries remained in the Zastava Group.

Prior to the bombardments, the automotive factory had had 11 364 employees, however, the number of employees fell to 4 242 following restructuring. At the end of the decade, Fiat reinvigorated production. Fiat Automobili Srbija (hereinafter FAS) was established by Fiat Group Automobiles and the Serbian Government in 2008 with a 67 per cent–33 per cent ownership share, respectively. In light of a subsequent contract of 2009, the area of Zastava factory and a building in Belgrade were transferred to the ownership of FAS. The Serbian Government and the Municipality of Kragujevac contributed to the green-field investments by the development of railways and roads, and is going to effectuate additional tax and economic alleviations.

The factory was opened in 2009, and the export of Punto Classic vehicles began in 2010, primarily to the North-African region, the Ukraine and CEFTA member states. The new factory producing Fiat 500L cars was opened in 2012 even though the number of exported cars was lagging behind the planned rate. The export of cars is realized through the Bar Harbor (Montenegro).

c) Bulgaria

The regeneration of the production of Bulgarian passenger cars, similarly to previous eras, was characterized by testing and small-series trial production. Permanent production was started at the end of the first decade with the investment of the Chinese Great Wall Motors in Lovech. A peculiar feature is that in the meantime, several car part suppliers/subcontractors which export to foreign countries established their plants in Bulgaria, while the Chinese company only procures accumulators and lubricants from domestic producers.

The first attempts of reviving the automotive industry in Bulgaria after the fall of communism in 1989 were made in the beginning of the 1990s with the opening of a car-assembling plant in the seaside city of Varna, where the British Rover cars were to be assembled. (The British company had decided to outsource some of their production abroad and eventually they chose Bulgaria – a deal originally initiated by the Bulgarian government. The investment was the largest up till then in post-communist Bulgaria. The new plant was expected to reach an annual assembling of some 10,000 cars. The newly built plant was completed in 1995 and was named “Rodacar”. Despite the good quality of the assembled cars and the good cooperation between the local engineers and the British experts, this first attempt of reviving the automotive industry in Bulgaria eventually failed for various reasons and mostly because of a negative combination of factors such as poor marketing strategy, uncompetitive price and strong competition in the face of Škoda Felicia – imported in Bulgaria at low duty, unlike the imported British car-elements needed for the assembling or Rover Maestro. The assembling process was stopped after 2,200 cars had been assembled in the plant.

Before the opening of Rodacar assembly plant in Varna, there actually was another attempt for car-making in Bulgaria - in the Southwestern town of Dupnitsa, where only several vehicles “Namco Pony” were actually made. The vehicle was based on Ford Fiesta under the license of the Swiss company Farmobil AG. The town of Dupnitsa is known for being the largest second-hand car market in Bulgaria, but it did not evolve into a car-manufacturing center.

In the autumn of 2009 a contract was signed between the private Chinese car-manufacturer Great Wall Motors Company Limited and the newly established Bulgarian Litex Motors company for building a new plant for car-assembling in Bulgaria. It is expected that by 2015 Great Wall Motors will reach a total output capacity of 2,000,000 cars per year, while by 2020 the company aims at becoming the best-selling economic SUVs and pick-up trucks company in the world. As of 2012, the Chinese company holds the 1st position in export among all Chinese car-makers and 6th position in total output. Great Wall Motors is also the

first independent private Chinese car-manufacturer to obtain approval for selling its production across the European Union and as of today - the only private Chinese car-maker to have assembling capacities in a EU country (Bulgaria) (<http://greatwall.bg/>).

Litex Motors Company is a newly-founded (2008) company and is a part of a larger one - Litex Commerce JSC - a major shareholder and co-founder of Litex Motors, conducting trade and investment activities in a variety of fields such as sugar trade, energetics, fuel trades, construction, agriculture etc (www.litexjsc.com). The joint Bulgarian-Chinese venture is 90 per cent financed by the Bulgarian company and only 10 per cent by the Chinese one (<http://sofiaecho.com>). A planned investment of around € 97 mln was declared for the first years, possibly to be increased to € 300 mln later. Litex Motors would be responsible for both - manufacturing and marketing (sales) of the cars.

The contract signing ended Great Wall's long searching for the best partner in its foray into European markets, with Russia, Slovakia and Belgium among other possible locations. The main reason behind choosing Bulgaria is the unique combination of several factors: cheap and qualified labor force, low (flat) corporate taxes, financial stability (the Bulgarian currency is pegged to the euro), EU membership and an attractive market for low-cost Chinese cars. Of course, a strong motive for choosing Bulgaria should be considered the fact that by assembling cars in the poorest EU country, the Chinese company would be able to ensure a ready and cheap labor supply, while in the same time avoiding EU import taxes for its cars. Choosing Lovech municipality and Bahovitsa village in particular, is a result of the more complex factors influence. The location is far from being convenient in almost any geographical aspect - no major transport arteries pass nearby, while the proximity of Lovech - a city with long car-assembling history is hardly a factor, since the newly hired Bulgarian staff consists mainly of graduates and students from the technical universities in Sofia and Gabrovo (Litex Motors works in cooperation with those institutions), and not from experienced engineers from Lovech, with working background in “Balkan” automotive plant for example.

Works to build the factory buildings commenced in February 2011 and by November 2011, a first test batch of 150 cars rolled out from the assembly line. In December 2012 authorities in Sofia recognized Litex Motors' investment as a key project for the country's development and promised to allocate around 1.2 million euro for building a road to the factory.

The factory is expected to achieve in the future a capacity of 50,000 or 70,000 cars per year and to employ 1,800–2,000 workers. The new plant near Lovech can therefore be considered one of the most modern in Europe.

So far, the employed personnel are only around 220 people – mainly Bulgarians, who have passed several training courses in Bulgaria and abroad. The average age of the engineers and the managing staff is 25 years, while that of the assembly-line operators – just 19. The managing body, however, consists of engineers with long experience of working for some of the world's most prominent car-manufacturing companies such as Nissan, MAN, FIAT etc.. The Bulgarian plant Director for example – Mr. Alexander Cramb – has worked for 20 years in the South African plant of “Nissan”.

As planned, initially all components would be imported from China. According to the initial investor's declaration, however, the production of around 40 per cent of the components and parts used in cars assembled in the Bulgarian factory will be outsourced in Bulgaria, including components made in Bulgaria and supplied by local manufacturers. Therefore, along with the car-assembling factory near Bahovitsa village, a whole industrial zone is envisioned, where factories for producing car parts will be built. As of 2013, according to official information, it is only the batteries and the engine oils and lubricants used in the cars assembled in Bulgaria, which are made in Bulgaria (<http://dnevnik.bg/>). To the authors' opinion, most likely the batteries are supplied by the Bulgarian “Monbat” Company (which production facilities are based in the Northwestern city of Montana), while the engine oils and lubricants - by the “Prista Oil” Company located in the Danubian city of Ruse. Those are, however, most probable suppliers, but unconfirmed officially by Litex Motors representatives.

What has been officially confirmed is that along with the Chinese-imported car components (shipped to the Bulgarian seaport of Varna), that all of the car models assembled in Bahovitsa village would be (optionally) equipped with a gas-injection system (the so-called liquid propane injection system) provided by the Dutch “Vialle” Company (Official letter... 2013). Great Wall Motors also signed a contract with another Dutch company which to inspect the production of the Bulgarian plant – mostly its safety performance.

During the first couple of years, the Bulgarian plant was expected to reach an annual output of some 2,000 to 8,000 cars of three main types.

According to the official letter provided for the current study along with the already existing representative in the FYR of Macedonia (Toltu Company), in 2013, representative offices of Litex Motors are expected to open doors in other neighboring countries (Serbia, Romania, Greece) and also in Albania, Montenegro, Bosnia and Herzegovina, Slovenia, Hungary, Slovakia, Czech Republic, Italy and the U.K. The U.K. market is going to be targeted. Along with the Balkan states and the U.K., other EU markets are also targeted.

As mentioned above, the initial idea of the building a Bulgarian car-assembling plant, provides that in the near future more and more components will be supplied by local manufacturers. During the last decade, Bulgaria turned into a very attractive location for outsourcing the manufacturing of a variety of car parts and components, replacing the most preferred until recently Central European countries such as Slovakia, the Czech Republic, Poland and Hungary for example, where the production expenses grew

for the last 10-15 years. In the Balkan region, Serbia and the FYR of Macedonia offer similar investment conditions, but they're both not in the EU which is basically considered a "disadvantage" compared to the Bulgarian EU membership.

The reasons for which Bulgaria is considered attractive for investment in relatively small-scale car-related production are various – low taxes and relative financial stability in combination with the existence of qualified and well-experienced labor force which comes at a very cheap price compared to the rest of the countries in the region and in Europe as a whole. Another positive factor is the proximity of the Bulgarian car-components factories to the already existing car-manufacturing plants in Turkey, Romania (Renault) and Serbia (FIAT). In addition, Bulgaria has several technical universities providing higher training to tens of thousands of students. Those universities are distributed mostly in the Northern part of the country.

As a result of all the above-mentioned factors, as of 2013 there are more some 40 to 50 enterprises across the country which production is used in car-manufacturing across Europe in many European and some Asian automotive companies. Many of those local manufacturers could be regarded as potential (and even current) suppliers of car components to the Great Wall plant near Lovech (unfortunately, no official information is available due to trade secret reasons). Currently the sector employs over 15,000 workers and its production constitutes some 4 per cent of the Bulgarian export which makes it one of the best developing industrial sectors in Bulgaria defying the spreading economic crisis in Europe.

All the above proves that Bulgaria has recently turned into a regional center of car-related industries, despite the fact that there is only one car-assembling plant in the country, which hardly makes it an automotive country. As a result of the growing importance of the car-related industries in Bulgaria, an organization was founded in July 2012, named "Automotive Cluster Bulgaria" (ACB) - a non-profit organization which represents the interests of automotive manufacturers, suppliers and organizations providing services for the

automotive industry. The organization fosters synergies between the cluster members and supports their business growth and competitiveness through participation in international joint projects, case studies and professional automotive qualification programs. The ACB currently boasts 22 nationally and internationally renowned member companies. Litex Motors Company joined the organization in the beginning of 2013 becoming its newest member (<http://abclusters.org>).

The Cities

Pitești

Pitești city with county status and the seat of Argeș county is one of the oldest towns of Wallachia. Due to its favourable geographic position, it has been functioning as a major commercial center of the area. The development of the city was uninterrupted even during the 20th century, due to which it has been able to preserve its central position.

In 1968, Pitești obtained county status during the construction of the Romanian system of counties, as a result of which each of its functions – economic, social and cultural – have gained a new dimension.

The city serves as a major national communication hub and due to its adequate transportation infrastructure, the city also has an economic polarizer role. In this context, the role of the railway must also be mentioned, which connects the city with the western country parts through Craiova, and the motorway connecting it with the capital city and which is the junction of major national and international highways (Plan de... 2013).

The city and agglomeration of Pitești have played a significant role in the Romanian automotive industry for several decades. Dacia factory has been a major national industrial stakeholder since the end of the 1960s, it has been able to maintain its leadership position thanks to a foreign investor, Renault. The new collaboration has initiated major modernisation and innovation processes, which has enabled Dacia Renault factory to become one of the most prosperous companies of Romania. This dynamism affects the city and the agglomeration alike, since the company is one of the major employers in the area recruiting workers from the agglomeration. The training and retraining programmes have contributed to raising the level of qualification of employees. Due to the social responsibility of the firm, several institutions have obtained grants and financial support. The evolution of the cluster is among the most crucial processes, as well as the creation of the labeled Auto Muntenia Competitiveness Pole which might broaden the core functions of the city of Pitești and ensure a higher level of integration of the city with its surrounding area.

Post-1990, the demographic trend of the city of Pitești showed a rapid period of growth, its population number exceeded 187 thousand, stagnated until the end of the decade and started to decline during the new millennium (Nedelea – Puncioiu 2011) and based on data from the 2011 Population Census, the number of inhabitants of the city was 155,383. While the city's population declined, the entire agglomeration increased in size.

Local industry was fundamentally based on traditional sectors such as food industry, furniture industry, textile industry, the manufacture of metal products and the highly technology-intensive rubber and plastic industry. A small number of large firms are engaged in the production of vehicle parts.

The Spatial Development Act creates the opportunity for settlements to form associations around cities with county status, forming so-called metropolitan areas (Csák 2011). In the case of the Metropolitan Area of Pitești, outside Pitești, eight additional settlements constitute the metropolitan area. Mioveni is an outstanding city of the agglomeration of Pitești, playing a crucial role from the aspect of the automotive industry as well. During the planning phase of the metropolitan area, Mioveni was included among the

potential members of the association, however, during the phase of implementation, it was excluded from the metropolitan area (Strategia post-aderare... 2008).

In Mioveni, currently an industrial, technological and science park is being planned which would serve as supplement to the automotive industrial activities in the city. The envisaged industrial, technological and science park will boost the city's automotive industry, while it also seeks to counterbalance the mono-industrial nature of Mioveni (as mentioned among the targets) due to which the city is heavily dependent upon the automotive industry.

Craiova

The city of Craiova is the most significant city of county status of the South Western Region, situated at a distance of 227 kms from Bucharest. The city had developed into a commercial centre by the end of the 15th century with a great economic power. It was the second largest city after Bucharest in 1910. The city underwent a spectacular development post-World War II. In 1948, one of the largest university centres of the country was established, the Craiova University Centre, as result of which the scientific performance of the city started to evolve. Craiova has developed into an industrial centre from the 1960s. The county's features characterise the demographic trends of Craiova: until the regime change, the number of the city's inhabitants had showed a dynamic increase, and later on, due to the coming changes, it lost a significant part of its population. In 1992, it had 309 thousand inhabitants, and in 2011, only 270 thousand. The National Development of Romania listed Craiova among the ten most prominent cities of the country. In addition to the city, nine further settlements constitute the Metropolitan Area of Craiova (*Zona Metropolitană Craiova*) which was formed in 2009 (*Planul național... 2005*). The strategic document of spatial development until 2030 classifies Craiova as a national pole which has the potential to become a real metropolitan area (*Pol Național cu Potențial Metropolitan*), and the catchment area of the development pole has a radius of 30 kms and comprises of 19 settlements.

In each city where it has a plant, Ford establishes strategic partnership with the higher education institution of the given settlement. This tradition was upheld in the city of Craiova, too, with the hope that engineers trained in local universities would become employees of Ford in the future.

Craiova has fulfilled a central function for centuries in the area, and automotive industry present in the city for many decades has contributed greatly to maintaining its outstanding position, even if the city's automotive sector had to endure several crisis periods. The presence of Ford in recent years has fostered the creation of the automotive cluster and the competitiveness pole later on, in which the role of Craiova has become increasingly upgraded, and due to which a paradigm change has occurred in the cooperation between the firms and institutions of the area.

Kragujevac

Kragujevac is the economic, cultural, educational and health center of the Šumadija region and the Morava-Šumadija macro-region. It is situated at the central area of Serbia and Šumadija, at a distance of 140 kms to the south of Belgrade. From World War II until the 1991 Population Census, the growth of the population number of the city and the municipality¹ was uninterrupted. The highest population was registered in 1991, when the number of its inhabitants was 180,084 and the core city had 144,608 inhabitants. The population of the city has been increasing since that year, in 2011 it was 150,835, while the total number of inhabitants of the municipality decreased to 174,100.

1 A municipality is a local governmental unit comprising of the city and the surrounding settlements.

Since the natural growth rate was negative, the increase is due to the inflow of migrants. On the basis of data from the 2011 Population Census, a total number of 79,235 newcomers live in the area of the municipality, out of whom 70,000 were emigrants from various regions of Serbia and 9072 changed their dwelling-place within the municipality. The rate of the working age population was 70.45 per cent according to 2011 Population Census data, which exceeds the national average as well as the number of working age inhabitants of most Serbian towns.

During the more than half a century long development and operation of the Zastava car factory, it has established cooperation with various subcontractors in the region's area. The majority of inhabitants from the surrounding areas were employed by these firms, therefore the region's development and economic situation were both directly and indirectly linked to car-manufacturing. Consequently, the decline of the Zastava factory had a negative impact on the economic situation of the entire region. During this period, subcontractors went totally bankrupt due to the obsolete facilities and poor privatisation methods.

The most severe economic recession occurred between 1991 and 2000, with the collapse of FSRY, international embargo was introduced against the FRY and the factory was destroyed during the NATO bombardments. The export-oriented industry of Kragujevac lost almost its entire market at that period.

Until 1990, car-manufacturing had a 65 per cent share in industrial production, making up for 90 per cent of the metal processing industry. During the subsequent years, manufacturing was reduced to one-tenth, the rate of exploitation of the existing production capacity fell below 10 per cent.

The opening of the Fiat factory did not only breathe a new life into the automotive industry, but contributed to the development of other sectors as well. Since the opening of the car factory by FIAT, an additional 30 companies established their plants in Kragujevac, which meant an extra 5,000 new jobs for the city. Two-thirds of these jobs were provided by Fiat, while the rest were created by Norwegian, German, Slovenian, Austrian, Israeli and Croatian firms.

In order to satisfy the needs of the Fiat factory, the existing roads and railways were modernised, and a new motorway is being constructed between Kragujevac-Batočina in light of the contract.

In addition to serving as the site of Serbia's automotive industry, Kragujevac is slowly but gradually becoming its commercial center as well. Consequently, other sectors are also developing, and new investors arrive unceasingly, which contributes to urban development. All this has brought about a change in the city's image and urban structure, launching the urbanisation of rural areas in the proximity of the city at the same time.

The current urban development declares that in addition to the development of the traditional automotive industry and arms industry other industrial sectors must also be welcomed in Kragujevac. The current mono-structural image of the city will possibly be transformed with the help of the Innovation Office and the construction of the Technological Park.

Economic development has largely contributed to the development of higher educational institutions as well. The University of Kragujevac has been operating since 1976

with its 11 faculties, out of which six have their seats in Kragujevac, including those of engineering faculties as well.

The Polytechnical School of Kragujevac is one of the first schools which cooperates with the FAS factory. The factory has made possible intra-muros practical training for the students, and it has donated modern equipment and a Punto in pieces to the school in order to contribute to the modernisation of practical training.

In addition to the above mentioned, training for the factory's new and current employees was organised in the school, and the teachers of the school were also able to participate in the courses held in the factory, in the framework of which they were able to become acquainted with the most up-to-date technologies of car-manufacturing.

The University of Kragujevac signed a contract with the FAS Foundation in 2011 about the cooperation between the two organisations. FAS is responsible for the organisation and conduction of practical training for students of the University of Kragujevac, the employment of graduate students, the provision of grants for the most outstanding students and the financial support of scientific research. In addition, FAS provides assistance to the University of Kragujevac in establishing an international cooperation with an Italian university. In light of the contract, the University of Kragujevac establishes an Italian language department and organises Italian language courses for the employees of FAS factory.

Lovech

Lovech is a city in North-Central Bulgaria, located at approximately equal distances from the Bulgarian capital Sofia and the largest Bulgarian Danubian city - Ruse (150 km from each). However, the city is not located on any of the main transport arteries of Bulgaria – it is 40 km to the Southwest from the main Northern railroad of the country and some 15 km to the North of one of the two main roads connecting Sofia to Ruse and Varna. However, it is expected that the continuation of “Hemus” motorway will pass some 10–15 km to the north of the city, which would significantly improve the city's transport accessibility.

According to the last census of 2011 the population of Lovech municipality was 62 165 people, and that of the city itself – 36,600. The dynamic trends of the population in the city and its municipality, basically follow those of the country as a whole – until 1975 the population of the municipality increased (the city – until the end of the 1980s). The population growth of Lovech municipality was mostly due to natural increase, while the migration rate was negative due to insufficient economic development. Therefore, for the last three decades the population of Lovech municipality dropped by more than 1/3 as a result of the combined influence of natural and migration decrease. The population decrease of Lovech and its district is twice higher than the national average for the same period. That defines clearly the Lovech region as a depressive region. The city and its municipality are expected to maintain their negative migration rates in the near future. The share of agriculture in the GVA in Lovech district is 10,1 per cent, which is lower than the Northwestern region of the country, but yet higher than the national average share. Also compared to the country as a whole, the service sector here is less developed (57,7 per cent of GVA) at the expense of the share of industry in the GVA (32,2 per cent).

Today, Lovech is still considered an important center of leather and food-processing industry, together with the manufacturing of power tools, cast iron, furniture etc. Traditionally, the production of cereals, meat, milk and vegetables is also developed in the vicinity of the city. The main industrial enterprises in Lovech and its municipality, some of which were mentioned in the previous section, operate mainly in the field of machine-building and metal-processing, electrotechnical industry, wood-processing and furniture-making, textile and apparel industry, fur and leather-processing, food-processing and fodder production. Since the beginning of 2012 however, the municipality of Lovech reemerged as home of the only car-assembling plant in Bulgaria, built in the village of Bahovitsa – some 5 km to the North of the city of Lovech.

Conclusions

The three examined countries resemble each other from various aspects, yet they have embarked on a different growth path during the recent decades. None of them can be classified as a superpower in automotive industry, however, it is an obvious fact that the sector has occupied an increasingly important role in the economy of the recent years. It is a peculiar feature that outside the economically prosperous capital cities, each automotive city is located in rural areas, inducing economic growth in these areas, functioning almost as cathedrals in the desert.

A common feature of the examined cities is that car-manufacturing was already part of their local economy several decades ago, primarily satisfying internal demand and moderating the shortage. Following a shorter or longer period of decline, the "transition" in automotive industry has occurred during the past one and a half decades, this has been the period of large-scale, export-oriented investments which have boosted the industrial development of these cities. These investments qualify as the most significant foreign investments in the economic life of the respective countries, which, surprisingly, have not targeted the capital city. The basis of the location choice of investments was mostly the historical past of automotive industry, but in reality, it is apparent that this meant the availability of the concrete site. The geographical location of the area was also an important factor (its position within the EU, the accessibility of Eastern markets, etc.), as well as the availability of cheap labour force.

Disparities can naturally be found among the respective centers. We found that the development level of the given centres was quite heterogeneous. Production was almost uninterrupted in Romania, and the level of organisation of the automotive industry in the two cities was perhaps the most advanced among the examined cities. The development of a significant agglomeration and a broad network of suppliers could be witnessed in the case of both towns. In the case of Pitești and the Dacia factory, we can already talk about the existence of development centers. Therefore, the industry has become highly integrated into the urban network and the economy as well. The company has achieved a large market share with its own brand. The other Romanian city, Craiova, and Kragujevac

in Serbia have also experienced a significant upturn due to their assembly plants, and have contributed to the spectacular dynamisation of their region as well. In contrast, the Bulgarian example reproduces the previous specifics of the Bulgarian automotive industry. Up until now, only a relatively small-scale trial production has been realised. If we consider the number of employees or integration in the life of the city or the area, we can declare that their level is quite low. The share of Bulgarian subcontractors is also minimal. (It is true, however, that we are talking about an investment in its initial phase which is expected to increase and the share of Bulgarian subcontractors must also be enhanced in order to be able to qualify the product as being of EU origin.)

Therefore, albeit in a different structure, the automotive industry "replays" the development trends characteristic of the previous decades in the area. The geographical locations have remained the same, and they have become integrated into those production trends which currently characterise the automotive industry in the entire world.

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