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# CAR INDUSTRY ENTERPRISES IN POLAND: STRATEGIC PRIORITIES IN THE CIRCUMSTANCES OF DEPRESSION ON THE MARKET

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### ABSTRACT

It is in the recent years that the automotive branch was remarkably affected by the global economic crisis. The companies that are located in Poland make up a significant element of the global system. The present paper analyses the most important data that describe the activities of these companies in the years of crisis (the research covered the period from 2005 through 2012). It is possible to formulate the thesis that this is the group of entities that relatively well coped with the difficult situation encountered in the environment. Thanks to the analysis that was made it was possible to point to the regularities that increased the possibility of making a success in this kind of circumstances.

KEY WORDS firm goal (L210), organizational behaviour (L220), firm size (L250)

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# INTRODUCTION

The generally advantageous situation of the Polish enterprises that represent the car industry branch, observed upon the ending of the recent economic depression, makes up a valuable example of how to effectively administer the possessed resources in similar circumstances. This subject has not hitherto been thoroughly explored although it potentially allows to achieve the knowledge that is of substantial practical significance with regard to the possibility of appearance of successive similar depressions. The major thesis of the present discussion which pronounces that the Polish car industry enterprises got through with the depression better than the entire car industry sector when viewed from the European perspective, was verified on the basis of the analysis of major data such as investments, the possessed assets, profits, employment and the achieved turnovers (the research covered the period from 2005 through 2012). In its theoretical part, the discussion

focused not only on the analysis of the effects of the depression itself for the European car industry branch but also on the description of the most significant phenomena that were determinative of the possibility of successful development of this kind of activity. In the final fragments of the text there were indicated the characteristic elements of the way along which the investigated entities had followed in order to reach the final competitively advantageous position.

# 1. LITERATURE REVIEW

The world economic crisis which came to the open in the second half of the first decade of the 21st century considerably affected the automotive branch (Brinkmann, 2011). In case of Poland this branch is univocally oriented toward the cooperation with the global system, particularly through its role of a supplier of a wide assortment of sub-assemblies frequently, of finished (Globalization..., 2003). The largest domestic enterprises of this sector make up a part of the great international concerns and are designed to satisfy their needs (Automobile..., 2006). On the basis of the data that were possible to obtain in EUROSTAT one may estimate that in mid-Eastern Europe the Polish companies generated 36% of turnovers of automotive branch. In the structure of Polish export, the automotive branch occupies one of the key places and is responsible for 15% of value of the entire Polish export. In the countries such as Poland, during the last crisis this branch was exposed to strong pressure resulting from the cyclical fluctuations in the economic situation (Keeley, 2010). For that reason one may expect that the difficult situation observed at the European Union market will unfavorably affect the leading companies which function in Poland and the tendency of these companies towards making investments (Peters, 2011). In order to understand the scale of the crisis that came to the open between 2005 and 2012 it is possible to use the data that are available on the European Automobile Manufacturers Association website (www.acea.be). According to the information published by this organization, in the years under investigation the following results were reported on the new passenger car registrations in Europe (EU27 + EFTA) as presented in million units: 15, 25; 15, 82; 16,00; 17,47; 13,67; 13,80; 13,61; 12,52. The fall of the new truck (GVW over 3,5t) registrations in Europe (EU 27 + EFTA) in thousand units was even more dramatic, what is illustrated by the analogous data: 388,2; 412,5; 438,8; 428,7; 240,4; 256,3; 324,1; 305,2. It can distinctly be seen that the falling tendency started in 2008 while in 2012 the market in both cases was lower from the initial level by a dozen or so per cent.

What should also be taken into consideration is that car industry enterprises are subject to incessant pressure exerted also by other processes. Apart from the economic depression to the foreground there come the phenomena that force out of the producers a constant progress and adjustment to the growing expectations of the environment, also despite the complicated market situation. The discontinuing of the investments – even in hard times – is in this case tantamount to the slow winding up to the business. Therefore while trying to appraise the situation of the enterprise it is so important to investigate the level of the investments, of the accumulation of capital or the productive potential. Without understanding the

mechanisms that determine the development of enterprises of this sector it is impossible to honestly appraise the way that the discussed enterprises selected in order to survive the depression. The sources of potential growth which appear in the production level of the companies of automotive branch lie in the present day level of development of technologies exploited by these companies (Omar, 2011). One of the groups which - from that perspective - is significant is made up by the electronic sub-assemblies (Hollembeak, 2010). The latter - to ever larger extent - relieve the users of performing the control or regulating tasks (Ribbens, 2012). The second group is the group of pro-ecological solutions which affect the fuel consumption or help to meet the standards of exhaust gas cleanness or those that affect the level of noise (Wells, 2010). The next area is made up by the material engineering which is of significance for the resistence of materials, their weight and their responsiveness to various phenomena (Cantor, 2008). What favours the generating of innovations are the growing standards of passenger safety (Pimentel, 2006). Of significance is also the evolution of the process of vehicle projecting (Weber, 2009), both within the scope of complicated instruments applied for this purpose as well as within the scope of effects that are obtained and that determine the ergonomics, comfort and performance (Bhise, 2011). Another area is made up by the solutions that promote the flexibility of production, its automation, improvement of productivity or cost control (Comacchio, 2012). The above review allows one to realize the large scope within which the search for potential growth is made by the automotive branch companies. This consequently makes also visible the scale of challenges that accompany this search (Vogt, 2011). There is, therefore, a large probability that the economic crisis had an impact on the tendency among the respective entities to select some parameters of the way of their development.

# 2. RESEARCH METHODS

At the Polish market there function many companies which may be classified among the representatives of the automotive branch. Yet the situation of this sector is determined by the condition of the largest enterprises which are responsible for the dominant part of turnover in this branch of industry. What considerably limits the present analysis is the

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lack of access to the indispensable data. The author assumed that there would be taken into account only those firms which made the suitable reports public in the entire analyzed period. It was possible to successfully arrive at the data that characterized the situation of the companies that were responsible for 25% of turnovers of automotive branch in Poland. Since these are ones of the largest companies in their own category they therefore determine the situation of their numerous smaller subcontractors. On the basis of the data that were possible to obtain in GUS (Chief Central Statistical Office in Poland) one could assume that the entire system (including the aforementioned economically dependent suppliers) is responsible for as many as approximately 75% of turnovers in the discussed branch. Thus, while investigating the situation of the selected group of the largest companies, we arrive at the picture of dynamics characteristic of the key phenomena that dominate in the entire branch. The analysis eventually comprised the following firms: Fiat Auto Poland (in the tables that are found in the further discussion the firm is referred to as FAP), Fiat Powertrain Technologies Poland (FPT), Inter Cars (IC), Inter Groclin (IG), Ronal Polska (RP), Sitech (ST), TRW Polska (TRW), Volkswagen Motor Polska (VMP), Volkswagen Poznań (VP), Volvo Polska (VO). The author is aware that in the above group there may be also found the enterprises whose supplies are partly directed towards the "after market". It seems however that in order to depict the full image of the situation of the largest car industry enterprises in Poland in the years 2005-2012 such analysis is nevertheless of cognitive value.

In order to compare – one to another – the condition of the respective companies within one period of time, and also in order to examine the development of their situation within the successive eight years the following variables were exploited. They were referred to as those of turnover (t), net profit (p), assets (a), shareholders' equity (e), investments (i), employment (w). The listed parameters allow to easily estimate the scale of activities of the respective companies (the scale changing under the influence of the observed crisis phenomena) and the probable attitudes of the respective owners towards the prospect of continuing these activities.

# 3. RESEARCH RESULTS

The data for the year 2005 (Tab. 1) show a large

distance of the leader (FAP) toward the remaining companies as regards the scale of activity since the turnovers of the FAP amount to one third of the sum of all measured results. However, from the point of view of profitability the hierarchy presents itself in a totally different way. The enterprise that was characterized by the highest employment (VP) had also the largest profits and made investments within the widest scope although it was lagging behind as regards the turnover.

Tab. 1. The characteristic of the ten leading enterprises of the sector as viewed from the perspective of the beginning of year 2005 (from column "t" to "i" in mill of zloty)

	t	р	а	е	i	w
FAP	10077	105	4322	1868	79	3751
FPT	3251	154	2058	1035	94	1255
IC	613	19	324	91	19	602
IG	509	43	406	212	47	3545
RP	731	23	553	157	40	1133
ST	684	112	683	115	131	1223
TRW	1873	154	739	462	21	2891
VMP	4368	195	1131	603	40	1005
VP	7611	309	3256	935	305	4800
VO	1439	41	475	198	7	1469
sum	31156	1155	13947	5676	783	21674

Source: own research on the basis of National Court Register and newspaper publications.

In 2006 the firm that took the lead – according to the criterion of the scale of activity measured by the proportion of turnover – was one which, in the earlier period, made the most important investments (Tab. 2). What also contributed to this change of the lead was the weakening of the previous leader. The sector as a whole slightly improved its results although this was due to the effort of the active minority in the group of companies that were investigated. What was also characteristic was the limitation of the scope of the investments that were made.

While analysing the data for the successive year, we observe the appearance of one enterprise that reported a loss (Tab. 3). Likewise, we observe that the turnovers and investments grew despite the fall in profits. Therefore we may assume that the branch expects the improvement of the situation in the foreseeable future. The increase in employment also confirms this. In the comparison that was produced the one who occupied the position of the leader two years earlier returned to the top position.

In 2008 all companies in the investigated group of

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Tab. 2. The characteristic of the ten leading enterprises of the sector as viewed from the perspective of the beginning of year 2006 (from column "t" to "i" in mill of zloty)

	t	р	а	е	i	w
FAP	8569	296	4380	1922	96	3622
FPT	3704	206	2291	1240	73	1356
IC	750	1	395	94	0	822
IG	466	12	404	229	36	3533
RP	759	20	529	211	23	1497
ST	819	96	634	210	18	1289
TRW	1983	155	930	617	39	3099
VMP	4358	127	1086	535	22	981
VP	8706	669	1415	1415	105	4771
VO	1365	36	453	193	19	1924
sum	31479	1618	12517	6666	431	22894

Source: own research on the basis of National Court Register and newspaper publications.

Tab. 3. The characteristic of the ten leading enterprises of the sector as viewed from the perspective of the beginning of year 2007 (from column "t" to "i" in mill of zloty)

	t	р	а	е	i	w
FAP	9225	251	4064	1865	182	3740
FPT	4520	248	2539	1488	82	1389
IC	1013	19	445	114	16	1030
IG	482	10	445	234	43	3597
RP	903	-17	538	194	18	1578
ST	809	78	551	288	7	1280
TRW	2181	166	1158	781	50	3848
VMP	4301	103	962	511	29	1087
VP	8776	527	2837	1703	122	5584
VO	1732	47	678	204	90	2312
sum	33942	1432	14217	7382	639	25445

Source: own research on the basis of National Court Register and newspaper publications.

enterprises where found to start with the positive financial result (Tab. 4). There is one result that in the analysis of the collected data draws our attention. This result describes the scale of investments made by the largest firm. This considerably raised the value of the global index. On the other hand also the remaining representatives of the sector increased their investment outlays (in spite of the general fall in profitability).

The data referring to the next of the analysed periods allow to make observations on a series of phenomena (Tab. 5). There were two companies

which improved their position with regard to the remainder, two of them reported a fall while six maintained the position they previously occupied. Two enterprises increased their turnover while eight

Tab. 4. The characteristic of the ten leading enterprises of the sector as viewed from the perspective of the beginning of year 2008 (from column "t" to "i" in mill of zloty)

	t	р	а	е	i	w
FAP	11584	349	5326	1964	963	4669
FPT	4459	175	2757	1663	143	1385
IC	1327	58	816	168	65	1168
IG	466	1	468	224	25	3869
RP	904	11	533	205	47	1508
ST	876	67	618	355	10	1416
TRW	2397	151	1367	932	71	4280
VMP	4374	107	940	618	118	1207
VP	7977	369	2929	2025	157	6020
VO	2409	39	868	243	48	2889
sum	36773	1327	16622	8397	1647	28411

Source: own research on the basis of National Court Register and newspaper publications.

Tab. 5. The characteristic of the ten leading enterprises of the sector as viewed from the perspective of the beginning of year 2009 (from column "t" to "i" in mill of zloty)

	t	р	а	е	i	w
FAP	15083	312	5709	2264	412	5526
FPT	3857	198	1832	1326	79	1382
IC	1738	25	1228	418	71	2041
IG	347	-27	360	190	17	2629
RP	746	-101	609	173	105	1271
ST	747	38	524	393	63	1440
TRW	2273	4	1503	937	83	4500
VMP	3796	74	813	590	123	1171
VP	7916	348	3086	2160	252	6133
VO	1981	28	861	272	37	2874
sum	38484	899	16525	8723	1242	28967

Source: own research on the basis of National Court Register and newspaper publications.

experienced a decrease in this respect. The net profit grew in one case (the remainder reported a result that was worse than the one reported a year earlier). Both the assets as well as the employment grew in half of the enterprises while they were falling in case of the remainder (in reference to the enterprises' own ECONOMICS AND MANAGEMENT

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capital and investments we can find the analogous relationship of six to four companies).

The sixth comparison shows the fall in ranking of the two firms, improvement in further two and stabilization of the relative position of the remainder (Tab. 6). The turnovers grew in four companies while they were falling in case of the rest (analogous proportions referred to the changes in the employment level). Six enterprises increased their profits while four reported the worsening in this respect. The enterprises' own assets were found to have been strengthened in seven firms. Also seven firms strengthened their own capital (while in three for the entire ten the capital and also the assets shrank). Three firms increased their outlays for the investments (other firms limited this category of expenses).

In the last but one of the examined years there was observed the improvement of the relative position of one company, stabilization was noticed in eight of them and there was observed one individual fall (Tab. 7). The turnovers and the size of the enterprises' own capital demonstrated a full concordance of changes (the upward movement in eight firms of the same type, the fall being observable in two). The profits improved in seven cases while they deteriorated in

Tab. 6. The characteristic of the ten leading enterprises of the sector as viewed from the perspective of the beginning of year 2010 (from column "t" to "i" in mill of zloty)

	t	р	а	е	i	w
FAP	19434	820	7408	2442	513	6422
FPT	3216	98	2214	1424	67	947
IC	2066	68	1273	499	35	2105
IG	171	2	284	182	2	2099
RP	702	46	562	218	26	1219
ST	858	39	586	438	78	1417
TRW	2808	210	1815	1225	21	4550
VMP	3317	72	943	560	38	1151
VP	7744	250	3375	2358	139	6194
VO	1219	-6	747	266	47	2419
sum	41535	1599	19207	9612	966	28523

Source: own research on the basis of National Court Register and newspaper publications.

three. The assets grew in eight enterprises and they fell in two. The increase in investments was noticed in three companies while its reduction was reported in seven of them. Four firms increased their employment while six introduced its limitation.

In 2012 the relative position of four companies was

Tab. 7. The characteristic of the ten leading enterprises of the sector as viewed from the perspective of the beginning of year 2011 (from column "t" to "i" in mill of zloty)

	t	р	а	е	i	w
FAP	16313	-82	6650	2409	664	6365
FPT	3731	169	2404	1386	53	890
IC	2413	64	1322	559	33	2258
IG	141	1	278	184	3	1563
RP	911	53	626	271	11	1218
ST	876	64	619	483	52	1547
TRW	2857	249	2040	1474	22	4606
VMP	4312	118	1032	606	29	1132
VP	7774	290	3502	2383	139	6120
VO	1601	33	762	319	27	2610
sum	40929	959	19235	10074	1033	28309

Source: own research on the basis of National Court Register and newspaper publications.

Tab. 8. The characteristic of the ten leading enterprises of the sector as viewed from the perspective of the beginning of year 2012 (from column "t" to "i" in mill of zloty)

	t	р	а	е	i	w
FAP	16471	84	7035	2467	854	5841
FPT	4748	13	3707	2341	175	1130
IC	2765	104	1547	665	45	2258
IG	181	1	288	191	3	1519
RP	1082	74	680	280	94	1242
ST	1191	105	728	524	39	1444
TRW	2776	121	2176	1594	37	4606
VMP	4466	107	1147	595	22	1161
VP	9822	281	3626	2036	202	6152
VO	2180	19	812	292	52	2652
sum	45682	909	21746	10985	1523	28005

Source: own research on the basis of National Court Register and newspaper publications.

changed (two of them were raised to an upper point while other two lost the places they previously occupied), (Tab. 8). Almost each company increased its turnover (and specifically nine of them did it while one experienced a decrease in this respect). Four companies improved their profits while five reported worsening (one company maintaining the situation of the previous year). The investments increased in seven cases, in two they fell and in one case their size remained intact. The enterprises' own capital was strengthened in seven firms, it was reduced in three of them but each firm collected more assets. Five

companies increased the employment while other three reduced it and two other left it intact.

# 4. DISCUSSION OF THE RESULTS

While analysing the joint results obtained by the enterprises under research (Tab. 9), we may notice a general growth of their turnovers in 2005-2012. Simultaneously, in the recent three years there has been observed the tendency to reduce the employment. Among various significant phenomena there is also visible an interdependence. It is detectable in the form of concordance of the line of changes adopted between the value of the sum of assets of all enterprises taken into account in the present comparison, and the scope of the investments jointly made by these enterprises.

As regards the turnover, between 2005 and 2012 the companies under research increased by about 50% which – while taking into account the inflation index at the level of 31% for that time - proves that the turnovers actually grew. With the exception of 2011, in each case we deal with the plus dynamics of changes. As regards the outlay of the analysed phenomena. That indicates the occurrence of soft, stabile rising trend. While considering the dynamics of the turnover of each of the ten considered enterprises we can make some interesting observations. The biggest success can be attributed to IC. The worst result was found in case of IG. The results of the majority of the entities showed high level of variability. The most stable reading was observed for VMP.

Tab. 9. The comparison of aggregated characteristics of the group of enterprises representing the sector in 2005-2012 (from column "t" to "i" in mill of zloty)

	t	р	а	е	i	w
2005	31156	1155	13947	5676	783	21674
2006	31479	1618	12517	6666	431	22894
2007	33942	1432	14217	7382	639	25445
2008	36773	1327	16622	8397	1647	28411
2009	38484	899	16525	8723	1242	28967
2010	41535	1599	19207	9612	966	28523
2011	40929	959	19235	10074	1033	28309
2012	45682	909	21746	10985	1523	28005

Source: own research on the basis of National Court Register and newspaper publications.

In case of the data that describe the changes of the net profit level in 2005-2012 we deal with remarkable turbulent situation. After the maximum reached in 2006 there occurred the collapse the minimum of which was detectable three years later (this corresponding to the period when the problems of the sector reached their climax). Despite one-time correction made in the successive year the value of the profit obtained in the last period stabilized at the level that was far from the optimal one. While additionally taking into account the inflation index, we can say that these results demonstrate the weakening position of the group of enterprises under investigation. While considering the dynamics of the net profit of each of the ten discussed enterprises we can notice that an impressive progress was made by IC. Four enterprises (FAP, IG, RP, VO) one or more times showed negative results. But the most negative tendency was observed in case of FPT and IG.

The data that indicates the accumulation of the assets in 2005-2012 are determined round the rising tendency. While comparing the first year and the last year, we may say that in realistic handling of the subject (despite individual results that we are worse in 2006, 2009, 2011) we deal with the growth of the size resembling that which was reported in case of the turnovers. While considering the dynamics of the assets of each of the ten investigated enterprises we can find that the most impressive abrupt increase of assets was observed in case of IC. TRW was found to be most successful in continuing year by year systematic, stable growth of the amount of assets. While comparing the first and the last year, it is possible to find that only IG showed the worst result.

The analysis of the data that illustrates the change of the size of the own capital of all examined enterprises points - in absolute values - to the almost one hundred per cent growth. Even if we take the inflation index into account, this is the evidence of the size of capital accumulation that was carried out in the examined period. What is worth to emphasize is the fact that each year was – in this respect – always better than the previous one. Likewise, it is noteworthy that the rising tendency points to the exceptional stability and consequence in the behaviour of the companies under investigation. While considering the dynamics of the equity of each of the ten considered enterprises we can also make some interesting observations. The biggest increase was observed in case of ST and TRW. Remarkable decrease can be found only in case of IG but minimal increase was also observed in case of VMP.

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In case of the analysed data that illustrates the investment level, there emerges the picture which indicates the highly turbulent nature of the behaviour of the enterprises in this respect. The observed changes point to the wave-like course illustrating how the investment efforts were made: after the period of violent growth and the making of intense outlays there followed the equally dynamic hold up (minima falling on 2006 and on 2010). The observed period of time is too short to allow the assessment of regularity of this phenomenon. Yet one may take into consideration the hypothesis that poses the question whether, in this case, we deal with the four-year cycle. While considering the dynamics of the investments made by each of the ten discussed enterprises we can notice that in case of about all of them the investment level was very high in the year 2008. The gradual reduction of investment (systematic tendency to reduce this rate) was demonstrated by IG. Generally the dynamics of the individual rate of investment was usually fairly variable from one year to another.

The order of the data that illustrates the changes in the employment level index (which came into being after the data characterizing the group of all investigated enterprises have been summed up) resembles the description of the phases of market development. After the period of opening growth we observe the acceleration, stabilization and diversion of tendency, that is initiating a slow decline. This may indicate the improvement in the employment in the last years, which should bring about the effects assuming the shape of increased effectiveness in operation. While considering the dynamics of the rate of employment in each of the ten investigated can additional enterprises we make some observations. Around the year 2008 the rate of employment was on the highest level in case of the majority of investigated entities and then usually stabilized around this level for a longer time (f.e. IC, ST, TRW, VMP, VP). But in some cases (RP and VO) the rapid increase was followed by similarly rapid decrease at the end of the period taken into consideration. Only in case of IG there was a permanent and deep fall of employment.

In case of the investigated group of companies, treated as a whole, the most difficult years of crisis in the environment (that is the years 2007 and 2008) proved to be the point that commenced the developmental phase (Tab. 9). It was exactly from that moment that there began to be observable systematic growth of turnovers while the level of investments and the employment level oscillated round the values

considerably higher than those characteristic of the initial period of observation. On the other hand, what was noticeable was the fall of average profitability of the companies of the branch. This fall of profitability was accompanied by the simultaneous growth of the assets and shareholders' equity. Obviously this picture, when split into the individual cases of the respective companies, may remarkably depart from the

Tab. 10. The percentage change of the level of the respective parameters as found between 2005 and 2012

	t	р	а	е	i	w
FAP	63	-20	63	32	981	56
FPT	46	-92	80	126	86	-10
IC	351	447	377	631	137	275
IG	-64	-98	-29	-10	-94	-57
RP	48	222	23	78	135	10
ST	74	-6	7	356	-70	18
TRW	48	-21	194	245	76	59
VMP	2	-45	1	-1	-45	16
VP	29	-9	11	118	-34	28
VO	51	-54	71	47	643	81

Source: own research.

averaged values. In this context the extreme cases are presented by the entities referred to as IC and IG (Tab. 10). What is characteristic, however, is that within the investigated period of time we generally deal with the noticeable conformity of the scope and the direction of changes of the respective parameters that describe the individual ups and downs of the given firm. The analysis of the coefficients of correlation as based on the above presented data allows to ascertain that all parameters that were taken into consideration have strong mutual reference one to another. Each time when the value of correlated coefficient is being obtained it is close to 1 (but in one case - that which involves the investment – we deal with the reference shifted by two years). It is therefore possible to discern certain consistency in the behaviour of the entire group of the investigated companies in each of the examined areas. During the global crisis affecting the discussed branch it was the dominating majority of entities that managed to enlarge the scale of conducted activities. This proves that the discussed companies were successful in selecting an effective strategy of progressing by the development in a safe market niche.

### CONCLUSIONS

While concluding the analysis that was made, one can find that in the context of the market situation in Europe in automotive branch, the Polish enterprises were found to be in a fairly good condition by 2012 (after the climax of the economic

crisis). Obviously the profitability (particularly in comparison with the amount of turnover) was not so impressive but still each enterprise was profitable. During these eight years it was the priority for the enterprises to build their modern productive potential based on investments and preservation of the skilled working power. These enterprises were able to attract capital, branch investors and the attention of the staff of headquarters of the biggest automotive corporations. Of course it was easier to reach these ends by these enterprises which, as the Polish plants, were also parts of international automotive corporations. Their success was also connected with the process of competing with other plants involved in the discussed production of the given company and located in other European countries. But certainly also purely Polish enterprises were able to extend their activities (for example IC) in spite of the case of IG which diminished the proportion of the latter. Generally one can find that in case of each enterprise the rate of efficiency was on a very high level, which proved that the Polish automotive enterprises were - during all these years - very competitive and that their strategy to invest in production technologies, to control costs and to preserve skilled working power was the right way to strengthen their market position. The author also hopes to open further discussion which might provide a deeper insight into the situation of similar enterprises in other European countries in the same period of time.

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