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PhD-Thesis Booklet

Role of Subsidies in Hungarian Automobile Industry

by

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Introduction

As a result of foreign capital investments automobile industry has become a determining sector of the Hungarian economy. There are four concerns playing outstanding role on the stage of the car sector in our country: Volkswagen - Audi, General Motors - Opel, Suzuki and Ford - Visteon. These four companies share 80% of the income of the road vehicle production. This sector in Hungary is export oriented. Among the greatest 50 Hungarian exporters there are always 8 to 10 car manufacturers.[1] These companies have produced an 8-10% of the whole Hungarian export since the Millennium. Meanwhile, the real importance of this sector can be found in its network structure, which has a double effect. On the one hand it by-produces the improvement of many joined sectors of economy (*e.g.* rubber, plastic, textile, glass), on the other hand it provides knowledge and technology transfer to come about.

Although the recent depression heavily affects it, automobile industry is one of the global sectors that can not only be forecasted to improve dynamically, but it is bound to happen with it in our accelerated world of globalization. Technology improvement of transport is dynamic, so production of the latest models displays high-technology. It is my question how the particular advantages of the sector can come to materialize, *i.e.* do Hungarian suppliers manage to join the value chain of automobile industry, besides, if technology transfer between multinational companies and home enterprises is able to come to realize, which can enrich national bank of know-how.

The analysis of the effects of the Depression on the automobile industry since 2008 is not a subject of my paper, because this period is too short and in this respect we can only talk about expectations when mentioning trends. In my paper I only marginally deal with the effects of the Depression. However international environment of economy has considerably changed by the crisis, the findings and the main points of my thesis haven't lost their importance. Experiences of the history of economy show that after a rearrangement of capital, ruled by a slump, a dynamic development of the economy and that of the automobile industry starts over.

[1] Source: Figyelő Top200

Medley

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8. **Kemenczei**, Nóra: A Nemzeti Fejlesztési Terv forrásainak felhasználása és néhány mérhető hatása (Use of Sources of National Development Scheme and Some Measurable Effects)
Chapter II. „Az NFT operatív programjainak tartalma és a források felhasználása" (Contents of Programmes and Use of Sources), paragraph 2.
„Gazdasági Versenyképességi Operatív Program (GVOP)"
[Competitive Economy Operative Programme (CEOP)] full chapter pp. 36-59.
ECOSTAT, Periodicals vol. XXVIII. Budapest, May 2008
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10. **Kemenczei**, Nóra – **Nikodémus**, Antal: Beszállítóilánc-menedzsment a magyar autóiparban
(Management of Suppliers' Chain in Hungarian Automotive Industry)
Külgazdaság, vol. LII. 2008/9-10, pp. 94-105.
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Proposition: 6)

Publications concerning my PhD work, conferences, talks

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PANAC Automotive Industry Conference, October 4, 2005
Lecture, Hungarian

12. **Kemenczei**, Nóra: Insieme in auto (Le relazioni tra Italia e Ungheria nell'industria automobilistica)
Il Ponte (Journal of the Italian Trade Chamber) 2008. settembre-ottobre, N.23, pp. 25.
Linguistically checked article, published in Hungary, Italian

Preliminaries

The basics of my proficiency in the topic of automotive industry come from my degree work[2] in 2003, led by Academician (Á.) Török, and I also tended towards this interesting topic during my work. After Hungary joined The European Union, at the Ministry of Economy I managed to take part in the preparation of the new strategy of competitiveness in 2005-2006, and I got familiar with the priorities, fields and conditions of subsidies of the Competitive Economy Operative Programme (2004-2006).[3] I obtained access to the actual economy policies, to the studies concerning automotive industry and to the background studies for preparing strategic decisions. Part of my scientific work I had at ECOSTAT (Government Institute for Strategic Research of Economy and Society), where I have been given a mandate to make an analysis on Competitive Economy Operative Programme[4] (CEOP).

Aims

My dissertation is partly an overview on the fifteen-year-old development of the automobile industry settled in Hungary after 'the system change' (1992-2008), and is partly an analysis of the standards and effects of the subsidies concerning national economy. The construction of my thesis is a two-parted analytical work. In the first part I am going to summarize the worldwide and Hungarian trends concerning automobile industry, and am going to draw a picture about the structure and operation of the suppliers' network in our industry. At the end of the first part I will make it clear whether or not automobile industry is a propulsive sector in Hungary, and as a such, is it worth to handle it as a priority of the national subsidy policy. In the second part I examine CEOP subsidies in different sectors. I am trying to stay objective upon the questions: have automobile industry subsidies been able to make any effects on the development of our sector since Hungary had joined to EU, and if they have, to what extend have they? As a result of subsidies has automobile industry performed more dynamic improvement than the average? Which sectors got the most subsidies, and is the road vehicle industry among

[2] BME Gazdaság- és Társadalomtudományi Kar „Az autóipar mint húzóiparág Magyarországon", diplomamunka, 2003 (BME Faculty of Economy and Social Sciences „Automobile Industry as a Propulsive Industry in Hungary", degree work, 2003)
[3] The Hungarian name of it is: Gazdasági Versenyképességi Operatív Program (GVOP)
[4] The Hungarian name of it is: Gazdasági Versenyképességi Operatív Program (GVOP)

them? I am going to present the number of tendering car industry suppliers for subsidy, and finally, what the sum was spent on development.

It is a fundamental interest of Hungary to have a subsidy policy that both can make an effect on the whole of the national economy and can offer a long term improvement for it by its trends. In my paper I am going to give an overall view of the state of the Hungarian automobile industry and its fitting into the international division of labour, which can provide a fundament to a reformation and an improvement of the subsidy system of this industry. The core of my thesis is a sector-specific improvement programme that focuses on the most effective touching points of the automobile industry.

Propositions, findings

1) In a competition for investments, instead of a competitiveness based on costs, Hungary should lay special emphasis on a competitiveness based on innovation and on improvement of value added, where the growth of that, coming from innovation and the development of quality and quantity of the human capital, overtakes the growth of wage costs.

In the competition for investment and against disinvestment Hungary shouldn't lean on competitiveness based on only wage costs, once it has been losing its importance since our country had joined to EU. The ability of the country to attract capital in long term can be made up by both growing the value added through R&D and bringing down taxes on wages. Under the circumstances of narrow production Hungary must pay attention particularly on improvement of human capital. Our real possibility for capital rollovers and to increase the value of investments lays in the development of R&D, where the level of technical education is prominently high. Production costs are to be risen as the level of development goes up - what concerns prize-value ratio. If we don't improve the value of the product through development of the human resources and R&D, we won't be able to cope with the speed of global improvement. We will lag behind our competitors in terms of investments and rollovers, or what is worse, disinvestment. So, the investments in car production could fall.

Publications concerning my propositions

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   BME, February 9, 2006, PhD conference
   Linguistically checked publication and lecture, Hungarian (manuscript, 8 pages)
   Proposition: 1)

2. **Kemenczei,** Nóra – **Nikodémus,** Antal: Autóipari trendek a nagyvilágban és hazánkban (World- and Hungarian Trends in Automotive Industry)
   Külgazdaság, vol. L. 2006/3, pp. 57-66.
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   Proposition: 2)

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   (Foreign Market Strategies of Automotive Industry)
   Tranzit, vol. VIII. September, 2006, pp. 34-39. www.tranzit.hu
   Linguistically checked article, Hungarian
   Proposition: 1)

4. **Kemenczei,** Nóra: Értéklánc az autóiparban (Value Chain in Automotive Industry)
   Supply chain Monitor, December 2006 - January 2007, pp. 53-56. www.scmonitor.hu
   Linguistically checked article, Hungarian
   Proposition: 2)

5. **Kemenczei,** Nóra: Hungarian Prospectives in the Automotive Industry
   Miskolc, April 2007, 25-27., XXVIII. OTDK (Economy Section)
   Linguistically checked publication and lecture, English (manuscript, 10 pages)
   Proposition: 2)

6. **Kemenczei,** Nóra: Gazdaságfejlesztési politika Magyarországon az uniós csatlakozást követően (Economy Development Policy in Hungary After EU)
   Budapesti Corvinus Egyetem, December 1, 2007, Conference „Három éve az 50 éves EU-ban" (Three Years in Fifty-Year-Old EU) pp. 44-55.
   Linguistically checked article and lecture, Hungarian
   Proposition: 4), 5), 6), 7)

7. **Kemenczei,** Nóra: Az uniós támogatások hatása a magyar gazdaság versenyképességére (EU Funds and Competitiveness of Hungaian Economy)
   BME, December 7, 2007, Conference „Merre tart a világgazdaság: Európa helyzete" (Quo Vadis World Economy: Europe's Position), pp. 9-19.
   Linguistically checked article and lecture, Hungarian
   Proposition: 4), 5), 6), 7)

Enterprises working in the field of automotive industry participated and won in CEOP tenders corresponding to the importance of the sector. The road vehocle sector was in the top 5 of the most tendering and the most winning sectors in each of the three priorities. However, the sum was so smashed to fragments that the subsidies to automotive industry couldn't make a visible effect on the development of the sector. Because of the limited sources, we need concentrated developments. Instead of a horizontal scheme of subsidies, we would better appreciate a vertical one that focuses on some outstanding sectors. Without that kind of strategy subsidies can not exert influence on the main tendencies of the improvement of a sector, so we can not indicate macro-economy effects either. Another interesting research field to discover is the consequences of the effectiveness of subsidies after global Depression 2008. Were the subsidies able to save employment? Was development sustainable? Were there any disinvestments, were there any new investments?

2) ***It is not easy for domestic small-and-middle-size enterprises to join the automotive suppliers' network. Hungarian supplier ownership is little, or their presence is typical on the lower levels of the suppliers' chain. It is due to the gap between foreign owned assembly plants and Hungarian owned small-and-middle-size enterprises on the one hand, and to the exclusive character of the suppliers' chain which is delimited by the risks of changes within the frames of the working system, on the other hand. So, preparedness of the Hungarian owned small-and-middle-size enterprises is not the only obstacle to join the suppliers' chain, but rigid production system too, as well as the trade policy of the multinational companies.***

So, not only the Hungarian owned companies' preparedness or unpreparedness is the only reason for the low level of domestic suppliers' ratio. Since the ruling segment of the global chain of value is beyond the Hungarian frontier, so are the decisions of strategic importance. On the one hand the existing assembly plants are hard to motivate to rise the domestic supplier ratio, investments, on the other hand, are easier to encourage by exceptional government decisions about subsidy. This is the way to stimulate a higher domestic supplier ratio through new assembly plants and their integrators. Hungarian owned enterprises with lack of capital can be efficiently developed by tendering for modernization their technology, and also can be prepared to fulfil the needs of assembly plants during the process of investment. Capital of knowledge of the enterprises can be recharged by the local Competence Centres.

3) ***The Hungarian automotive industry cannot be identified with the classical concept of propulsive industry.***

One of the positive effects domestic automotive industry caused is that its contribution to GDP is showing an increase, it topped 3%. However, it gives living for a bit less than 2% of the population it provides occupation for 55 thousand employees. Their wages are 20% higher than the average of all industry, so it is beneficial to Hungarian standard of living. As an optimistic person, I started my list with the positive effects of car industry on national economy – half of the glass is full. What concerns the empty half of the glass is the question what is missing to the real propulsive character of domestic automotive industry. This part of the list I start with the fact that the production of our industry doesn't seem to better on figures of Hungarian balance of trade, in spite of its high export – that is thought to be positive in the public opinion – because import and export is balanced year by year. During the examined period imports grew parallelly with exports, so the ratio of Hungarian suppliers did not rise parallelly with production. 90% of production and export is made by assembly plants and their integrators. From the point of view of expenditures on innovation the picture is darker. In the year 2008 there were only 15 companies to spend on innovation in this sector, and as high as 90% of it spent only one company: AUDI. Contribution to the activity of the sector from the part of Hungarian owned enterprises that operate on the lower supplier levels is of little account. We hardly can talk about their multiplier effect in lack of supplier relations. Assembly plants working on the base of foreign capital in Hungary seem to work rather isolated than organic parts of our national economy.

4) ***In proportion to enterprises coming from road vehicle sector the bulk of the attendants took part in 'Investment Incentives' (Priority 1) of CEOP. During the three-year long period of CEOP 78% of the subsidy, won by this sector, had been realized within the frames of this Priority. So, there seems to be a rising need for modernization of the technology and reinforcement of the enterprises working in this field.***

The commonplace is true: suppliers strive with lack of capital. So, there is a technology gap between the Hungarian owned and the foreign owned multinational companies. This hunger for capital can be efficiently satisfied *via* tendering for available subsidies.

5) ***Companies working in automotive industry barely took part in 'Improvement of Small-And-Middle-Size Enterprises' (Priority 2) of CEOP. Such companies used only 7% of the subsidies won by car industry during the examined period. It means that small-and-middle-size enterprises cannot be improved effectively by tendering. Developments concerning up-to-date management, advisory board and company communication can be addressed to Competence Centres.***

From the three year experiences of traditional way of tendering we can conclude that it is not the right way to solve improvement problems of the

small-and-middle-size-enterprises because of the complexity of this task. The elements of economy gap between the traditional large companies and the Hungarian owned enterprises induce such tasks that can be solved only by direct communication. Local organisations can offer forum on either spreading market information and up-to-date company managing, or providing sector databases that could help in company cooperation, or building a bridge between assembly plants and enterprises aiming to reach the position of a supplier.

6) ***According to the conclusions of 'R&D and Innovation' (Priority 3) of CEOP and those of statistics and sector surveys the number of the companies dealing with research and development in automotive industry is insufficient, and also expenditures on innovation in Hungary are fare behind the international average. The main reason of it is that the ruling segment of the global chain of value is beyond the Hungarian frontier, so are the decisions of strategic importance.***

Since there is no Hungarian car-brand, so the value chain doesn't cover the country, we have to come to terms with the fact that in lack of excellent innovation circumstances parent companies will not settle R&D to their subsidiaries, so we are to stay in the position of an assembly plant. White-collars in Hungarian automotive industry are rare. If there is personnel increase, it is likely of blue-collars. While in 1993 white-collars' ratio was 25% in this sector, it fell by 6% up to 2007. In spite of several university cooperation R&D expenditures didn't raise significally in the examined period. Enterprises working in the field of automotive industry took little part in CEOP R&D tendering. On the basis of all these we can state that our country is rather an 'assembly plant' than an 'R&D centre'.

7) ***The automotive industry participated in tenders corresponding to its economy importance, and was able to cut its fair piece of cake desired. In spite of that accepted impact on macro-economy is missing. It is because of that the sum devoted to strengthen the competitiveness of domestic economy has been fragmented and flown away among the sectors. Thus the additional funds vehicle production got are not enough to promote the production of the industry to a considerable macro-economy extent – I suppose – neither short-term nor long-term.***