

THE ESTABLISHMENT OF THE DEVELOPMENT STRATEGY OF THE HUNGARIAN BUS MANUFACTURE TO COPE WITH WORLD ECONOMY CHANGES

J. KOZMA, I. MAGYAR, P. MICHELBERGER, B. SÁLYI and P. VÁRLAKI

Institute of Vehicle Engineering, Technical University, Budapest

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I. Main world economy factors affecting the evolution of the Hungarian people's economy in the 6th Five-Year Plan period

The fundamental object of the 6th Five-Year Plan — in agreement with the decisions of the 12th Congress of the Hungarian Socialist Workers' Party — is "to restore and to strengthen the equilibrium of the people's economy involving that of foreign trade". The Hungarian people's economy being a rather open one, the economic realization of the main object requires to take the most important world tendencies into consideration. These tendencies which directly or indirectly affecting the mobility of the Hungarian economy, belong essentially to four main groups so it is necessary to make a short survey of them:

- a) The "North-South" controversy, that is, increasing differences between advanced industrial countries and developing — or rather, industrially-economically backward — countries of the third world.
- b) The price explosion of fuels and raw materials, price ratio shifts and as a consequence important international trade changes.
- c) Peculiar, protracted crisis phenomena of the capitalist economy, lasting inflation, structural changes.
- d) The overall world economy position of the COMECON countries, the possibilities and problems of cooperation and integration within the COMECON.

a) Going into details, the most prolate, complex and difficult problem is due to the scientific, technical and economical polarization process called the "North-South Controversy". It is by no means a new problem,¹ but it becomes more and more important as importance in the world policy and strategy importance of some developing and underdeveloped countries of quite low living standard ("the fourth world") is increasing. From the aspect

¹ From 1913 to 1957 the population has grown in the advanced European countries by 15%, and the income percapita (in \$) by 74%; during the same period in the SE-Asian region the same figures were 60% and 3%, respectively! (J. Tinbergen: The RIO Report. Közgazdasági és Jogi Könyvkiadó, Budapest, 1979.) Actually, this controversy will only be considered from the economy side, and not from the social and political aspects.

of the foreign trade between the Hungarian people's economy and the developing countries, this situation offers theoretically great possibilities (and political responsibility at the same time) in particular for foreign trade forwarding technical development, and for the trade of intellectual goods.

Concerning the foreign trade forwarding technical development to export complete technologies (plants ready for production to the third world as prime contractors has been and may be successful in the future as well, partly because of the fact that it also involved intellectual export needs. This sort of export promotes the development of cooperations both at home and abroad. At the same time, one has to be aware of the limitations of these possibilities, arising partly from the poor solvency of our developing partners and our limited credit capacities, and partly, from the problematic local adaptability of exported technology, having definite preconditions.

b) Rather than a "price explosion" of fuels and raw materials, a continuous price advance seems to occur, with the worst economical consequences for us in the medium term by further impairing exchange ratios. Within 5 to 10 years, some raw materials among the typically hard wares of the world market (natural oil among energy carriers, timber or phosphate among other raw materials) are unlikely to be replaced by competitive substituting materials.

Neither is there any reality to expect raised price standards, shifted exchange ratios to return to the original levels. Obviously, the conditions of foreign trade relations will further change for the worse for the Hungarian economy. Besides, the production costs of raw materials in COMECON are markedly rising year by year, so the Hungarian people's economy has to follow simultaneously two main trends:

- application, development and introduction of constructions and technologies reducing the power and material consumption of the production;
- increase of competitiveness, that is, searching for markets with demand tendencies favourable for us, with the corresponding increase of the marketability of our supply, with all its consequences.

c) The effects of the crisis phenomena of capitalist economies are rather complex; altogether they impose requirements similar to the price explosion of raw materials: the quantitative and structural rationalization of imports, and the competitiveness of exports are primordial in this respect, too. However, they must be interpreted and carried out in a differentiated way. Import rationalization must not be understood as "exclusion" of import of highly efficient capitalist innovations, very important from the aspect of the increasing competitiveness. In this respect, however, the development of cooperational relations is the more efficient strategy (including the establishment of multinational enterprises): this is a means to acquire more highly developed technologies by creating simultaneously favourable selling possibilities to our labour

and final products, in addition to the partner economy, also in other regions of the world market.

The observation of, and fast accommodation to structural rearrangements, technical-technological renewal processes in capitalist countries are fundamental to efficient relations maintained with these partners under increasingly difficult marketing conditions, as exemplified by the about 300, and over 100 cooperation agreements with the FRG and with Austria, respectively. A crucial problem of the development of foreign trade both to balance raw material imports, and to aim at capitalist markets, a main condition of constant presence at the market is the disposal of systems, that is, to export technologies or products integrated with an adequate service of customers, ensuring the replacement of parts. This strategy requires adequate preparations in the Hungarian industry.

d) Under the recent circumstances, the world economy situation of the COMECON countries features a certain dichotomy likely to subsist in the medium term. Namely, these countries are compelled to import goods from advanced capitalist countries in huge quantities in order to meet the demands of the domestic market and to increase the competitiveness of their foreign trade.² At the same time, export from all COMECON countries but the USSR comprises less hard goods, more sensitive to shifts in the exchange ratio, and features a rather rigid structure, hardly modifiable in the short run.

Also the essential changes of both outer and inner conditions of the process of the cooperation and integration of COMECON countries have to be taken into consideration. For the Hungarian economy this is mainly shown in increased importation difficulties and lasting imbalance.

The COMECON market will fundamentally remain a deficiency market in the decades to come but this fact does not mean a slackening of requirements with respect to the quality of our export. In certain groups of products, e.g. in the machine industry, a definite competition between suppliers is expected to arise, so we have to take it into account with it.

A fundamental condition of advancement in the fields of both production and business seems to be the development of an international cooperation mechanism suitable to promote the efficiency of cooperation and integration under the changed conditions. The same is true for the trends of development and alteration of home economy mechanisms.

Namely, in the next decade, quality requirements and price standards in the COMECON countries will tend to world market standard, — of course, differentiating between groups of products. Thus, the system of requirements and conditions will be adapted to systems generally prevailing in the world

² In this respect taking up credits to relieve relative capital shortage is also of importance.

economy. All these will be inavoidably reflected by production and business processes.

In some fields of production processes intensive, up-to-date endeavours of internatinal specialization and cooperation will prevail.

The COMECON cooperation will be the principal external factor of growth for the economies of the member countries in the next decade as well. Different forecasts — assuming normal foreign affairs — assign an increased importance in certain fields to some groups of developed capitalist countries, and to international organization.

As a conclusion, concerning world economic relations, "COMECON relations will continue to prevail but not in the sense as to restrict our relations to capitalist markets, rather . . . to improve our competitiveness mainly relying on the COMECON." (Rezső Nyers: Interaction between Economy and Politics in our Economical Development. Társadalmi Szemle, December 1981.)

2. Main tendencies controlling the development of Hungarian autobus production

Outer factors of the development and some observations

The outer circumstances of developing a strategy to increase exports are defined partly by world economic tendencies summarized in the introduction, affecting the Hungarian people's economy as a whole, and partly, as the concrete consequence of their effect, by the expected short run development peculiarities of the capitalist car industry and the division of labour in passenger transport.

Changes in capitalist car industry

The increase of power costs in the mid-'70s focussed two ways of energy saving in the car industry, the development became concentrated on the simultaneous decrease of the specific fuel consumption of vehicles, and of the power and material consumption of production. So the Hungarian industry has to develop in this direction as well. It is the Japanese car industry that seems to have adopted itself in the quickest way to the new requirements. In this way Japan became the leading car producer in the world in 1980 while her export, having increased greatly both to the USA and to the EEC countries, was favourable at the same time, on her traditional markets (Asian, African, South- and Central-American countries).

The Japanese "foreign trade offensive" hasn't only been realized by selling end products but also in realizing important cooperational relationships between Japanese, European and American car manufacturers. This process

is by no means terminated, actually the most important relations are those between Honda and BLMC (Leyland) and Nissan and Volkswagen.

While six to eight years ago, 250 thousand cars a year were considered in capitalist countries as the lower limit of economical production, now actual economic forecasts state 1 million cars annually. According to the British economy research institute "Economist Intelligence Unit", by the turn of the millenary, capitalist car factories will be comprised by eight huge multinational car corporations such as two from the USA (GM, Ford), two Japanese (Nissan, Toyota), two French ones (Renault, Peugeot) one from the FRG (VW) and one from Italy (Fiat). This forecast is confirmed by the accelerated fusions of European car factories.

The evolution of the labour division in passenger transport

In spite of the energy crisis, demands on mobility in society are expected to increase; largely as a consequence of urbanization³ and further development of tourism. To meet these and even the existing demand of the mobility increment is likely to induce important structural changes in the near future, in favour of public transportation. It is partly because of the fact that the specific road surface demand (related to one passenger) of public transportation is much lower, and partly because the power need and the fuel consumption for one passenger per one km are much lower in public transportation than in the use of private vehicles.

This tendency (of increasing the share of public transportation referred to in some publications as a renaissance of public transportation) brings about an increase of demands in bus transport, although it is likely to have a greater effect on streetcar and underground railways as well as trolleybus transports because of their better power and transport capacity characteristics. The competitiveness of bus transport is, in turn, increased by its lower investment demand and higher flexibility to accommodate to changes of traffic needs. Because of its lower investment demands it is especially advantageous in developing countries with less developed railway network.

Foreseeable trends of bus demand and supply

An integrated consideration of the two groups of external factors would permit to outline the expected trends of bus supply and demand on which the strategy of the Hungarian bus manufacture has to rely on as well.

The most arduous market fight of passenger car sale is the one between American and Japanese manufacturers, for acquiring the American market. Actually, Japanese manufacturers are better positioned, namely their cars

³ Important changes are likely to occur in this respect both in developing countries and in the USSR.

of law consumption, high safety and qualities meeting the demands of the protection of environment are more competitive than American products of higher consumption. Since, however, American car manufacture is a key industry involving 14% of all wage earners and of a sound financial position it is likely to market car models competitive to Japanese cars in huge quantities in a few year. No doubt, Japanese intrusion into the American car industry is expected to weaken this impact but anyhow, the increase in the share of the Japanese on the American market will stop or, maybe, recede. Thus new flows of Japanese cars are likely to be sent towards developing, and especially, Western-European countries.

This means a double challenge to the Western-European car industry: a new surge of Japanese export intensification endeavours on the one hand and the competition by new American models of "more European features" on the other. Its first sign is the appearance of GMC's "world car". European car factories have already prepared to answer this challenge by increasing their competitiveness by developing fuel-saving models (the latest being e.g. "Metro" by BLMC). Their chances, however, are limited by the hitherto intrusion of American and Japanese capital to Europe. (Similarly to the strategy of the USA, i.e., limitation of the Japanese export, its reduction to a given level seems to be possible but zeroing not.)

The renewed stress on public transportation in Europe induces leading car factories to intensively develop their utility vehicle production involving bus manufacture. (In the late '70s, IVECO-Magirus raised its bus export from 679 to 1327, Kässbohrer from 840 to 1082, DB from 6189 to 6347 comprising also the number of minibuses and undercarriages.) This is particularly promising for the European car industry, since the next decade seems to be exempt from the competition of Japanese and American-made utility vehicles and buses which develop regardless of European demands. Both American and Japanese bus production are planned for home markets, the latter supplying, in addition, Asian countries.⁴ This tendency is strengthened by the outlined decrease in efficiency in the investment of the European car manufacture, turning capital instead towards the affine industry (of buses and other utility vehicles). The actual and in particular, the prospective large-scale development of the European bus industry relies on the industry of utility vehicles as a whole; the initiatives of the FRG and of Italy are of particular importance. The development of the multinational firm IVECO, initiatives and investment of Mercedes Benz, MAN and VW may be quoted as examples.⁵ Western-European development is featured by:

⁴ The Japanese bus export goes increasing — mainly in Asian markets — but the high numbers arise from minibus and small bus supply, technologically based on cars, rather than on big buses.

⁵ A phenomenon also reflected by changing tendencies of the European car industry stock quotations.

- part-unit specialization with an important international cooperation, which proves a high level of profitability;
- endeavour to meet the entire scale of demands;
- keeping level with the variation and higher quality of demands;
- relying on truck manufacture and production of highly developed special equipments as industrial background;
- developing the quality of products and production, rather than the capacity.

*Internal factors of the development of the Hungarian bus manufacture
(potentialities and possibilities)*

One of the most important items of foreign trade of the Hungarian people's economy is the autobus, specified by the 6th Five-Year Plan to further increase its share within the export. This provision makes it a typical example of determining the development conception.

In 1979 its share was 3.8% (against 6.6% of the total vehicle export) ranking buses, as independent products, among our most important export goods. To keep this ratio or even to increase it to a small extent mainly with respect to export — into capitalist countries is likely to be one of the main scheduled scopes of the vehicle industry. The relevant prescription of the 6th Five-Year Plan is to increase the buses exported to capitalist countries by over 30%.

These objectives can only be realized by a profound analysis of the features and development possibilities of the Hungarian bus manufacture (supply side), keeping in mind the development of an efficient strategy of sale on capitalist and third-world markets (demand side).

Diagram in Figs. 1 and 2 show bus manufacture and sale, resp., by the Ikarus factory in the period from 1948 to 1980.

Fundamental characteristics of the doubtless by dynamic development are the orientation to Soviet and GDR markets, enhancing efforts to be present in capitalist and third-world markets, at the same time in order to respond to the mentioned world economy effects. Besides of capacity data, let us outline some factors of the up-to dateness of production and products:

- Ikarus is the largest "only bus" producing factory in the world producing no other utility vehicle;
- the design principles and methods of the products and the construction are up-to-date but as to some home made part units which — owing to of a rather restricted choice — which are difficult to be kept on a high level;
- this statement also concerns the manufacturing technology as the advantages of production in large series — especially of some part units — could not be fully enforced in each technology phase;

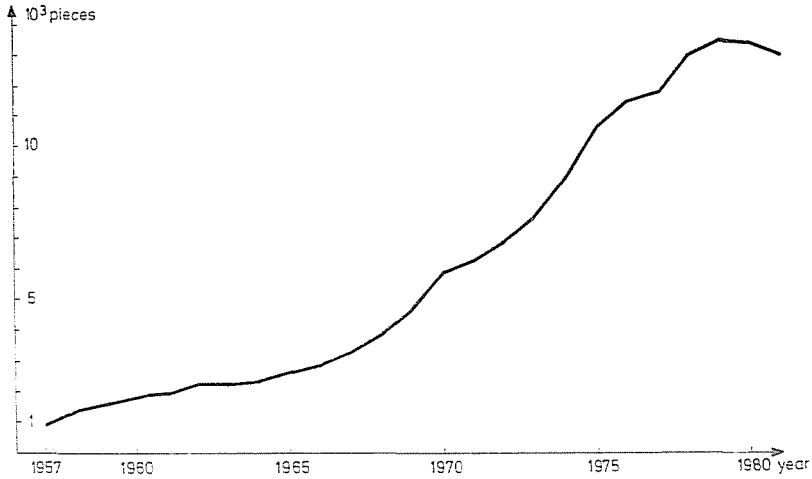


Fig. 1. Bus production in the Ikarus factory

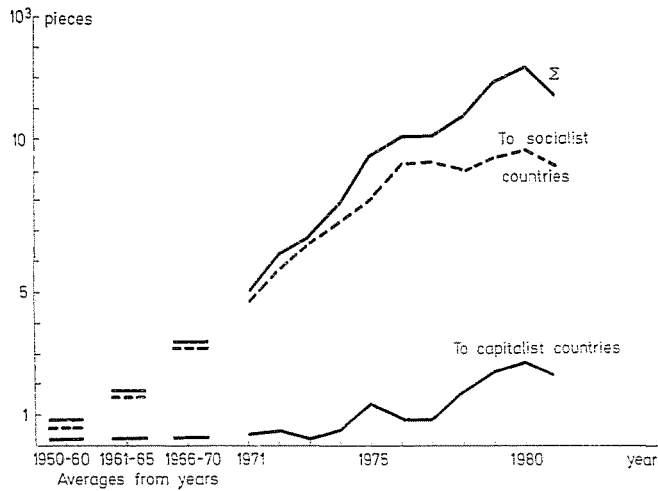


Fig. 2. Bus exports of the Ikarus factory

- orientation to COMECON, especially to Soviet markets favourably affects the construction as a rule, leading to reliable operation even under difficult conditions;
- the development of the products on the “family principle” favours choice by exhibiting 227 alternatives of 19 basic types. (Major capitalist bus manufacturers offer a choice of 100 to 200 types.) Practically, adaptation to special demands is rather difficult because of the problems of the devel-

opment of background industry, the availability of Hungarian part units and fittings:

- the cycle of innovation of the product is rather favourable: to develop and manufacture a new product family lasts about 6 to 8 years. Its average working period is from 10 to 15 years, actually judged favourable in COMECON markets, and adequate in capitalist markets, in view of the product complexity;
- the relations of the factory with its domestic cooperating partners are convenient as a rule, and can support development; foreign cooperations have already made possible to enter several new markets, and they have considerably raised the technical level;
- the development of sale that has hitherto taken place provides for favourable references and brand fame to the Hungarian bus factory. The overall volume of sale on the Soviet market is unique all over the world market. System sale (part supply, servicing and the like) requires, however, intensive development.

3. Outlines of the medium-term export development concept of the Ikarus factory

Thus, the Ikarus factory has to raise its export activity against an intensifying capitalist market competition.⁶ Although by the end of the 5th Five-Year Plan period, possibilities to conquer new markets emerged (e.g. articulated buses for the USA), but the exploitation and preservation of these markets also in capitalist relations, is possible by increasing the sale including further markets and new, especially cooperative relations. Namely, adaptation to demands of the customer country imposes the application of part units with technical parameters unavailable from socialist relations. It doesn't usually make difficulties if part units can be purchased in exchange for end products, increasing the competitiveness through import from capitalist countries without impairing the foreign exchange balance. Further advantages may arise from sale on a third market in production cooperation with capitalist partners.

The development of the export to capitalist countries by cooperations raises, at the same time the technical level of manufacture, helping to solve problems is technology too slow to solve by domestic development. The development of sale is expected to provide for system sale, including customer service and part supply, as well as supply of special equipment for maintenance and repair. In spite of the important development of domestic industrial background, a non-negligible factor is that selling Ikarus buses in markets

⁶ Notice that this challenge is intensified by the effect of well-known socialist development objectively further straining the competition, likely to slacken the cooperation between socialist countries.

supplied by capitalist cooperating partners has the advantages of using the servicing network of utility vehicles of these partners which is especially advantageous in the case of sale increase in developing countries.

The advantages of cooperation for capitalist partners consist essentially in investments of higher mean and limit efficiency⁷ and more efficient sale due to the high-standard car bodies and part units produced by the Ikarus factory. Namely by producing in Hungary the parts of higher labour demand, the proportion of wages is reduced, at the same time advantages of large series production — including the developed special production infrastructure — can be made use of in certain markets, and more favourable credit sources can be obtained as well.

Thus, both internal and external potentialities motivate the increase of the export by the Ikarus factory in capitalist relations. To do this it is necessary to fulfill the specifications of the Five-Year plan concerning the development of the factory with a special regard to investments promoting capitalist cooperations and improving the product quality.

To increase the export to capitalist countries cannot, of course, be an isolated operation but it belongs to the framework of an integrated activity. This is further dominated by Soviet export where again, increasing demands impose developments. Primarily, increasing quality requirements and the rise of raw material costs impose to reduce prime costs. This doesn't mean a cost reduction but a raise of the level of the product faster than the rise of the prime costs, in order to improve the gain to justify the cost increase and to make it acceptable to the consumer.

4. Examination of the changes (risks) of realizing the development concept of bus manufacture

Several objective and subjective influencing factors which are necessary to realize the outlined medium-term development concept (strategy) can only be estimated at a certain probability. The most important of the so is the expected fluctuation of the demand by capitalist (third-world) markets.⁸ This is partly related to the peculiar overall economy crisis phenomena (cp. point 1), and partly, to the significant influence on the demand of the development of capitalist factories themselves.

For the Ikarus factory, a possible transitory decrease of capitalist demand can be offset by flexible production and sale policy. Two of the possibilities will be pointed out:

⁷ The limit efficiency of investment is understood according to Wicksell's definition.

⁸ By virtue of the nature of bus consumption, demands on bus orders strongly fluctuate. Cycles are smoothed by sale in socialist markets but the most effective means of compensation is a well prepared, conscious marketing policy.

- manufacture of buses for special purposes (e.g. X-ray testing and the like). These are precious, labour-consuming vehicles, manufactured individually or in low-series corresponding to four to five "ordinary" buses and marketable in small numbers in a multitude of relations;
- the transient demand drop can be utilized to accelerate the reconstruction of production technology processes, to enhance the product development, in a wider sense, to realize an innovation process of longer perspective.

From the aspect of methodology, the presented sketchy concept as a forecast (prognostic) is an attempt to outline the expected development of the change of a highly complex system depending on both external and internal influences.

In a given case, chances of assumed variations of the world economy to occur, and occurrences of (4—5 "independent") events anticipated (contracted, simplified) in car industry and within it, in bus manufacture, can be separately assessed at a very high subjective probability (0.9 or higher). Thus, the probability of the conception to be realized amounts to 0.75 to 0.70, at a risk probability of 0.30 to 0.35.

An assessment taking into account also the interdependence of the quoted factors is much more complex but it shows more favourable chances because of the existing dependence. In the actual case, its omission may be considered as an increase of the assessment safety ("significance level") since this simplified estimation is likely to be somewhat pessimistic.

Of course, this risk level refers only to complementary capital investments establishing capitalist (third-world market) sales. Without any analysis, on the basis of a simple expert estimation, the socialist relation can be assigned with a random risk level of 0.04 to 0.05. Considering the ratio of sales in capitalist, third-world and socialist countries (30 to 70%), the aggregated risk probability of overall development can be assessed at about 10% (0.1 probability). This can be regarded as an acceptable (reasonable) risk.

Summary

The paper deals with the most important actual political and economical problems of the export policy and investment decisions of the socialist enterprises.

The basic components of this export policy are discussed in detail for the Hungarian utility vehicle industry and especially for the bus production, which is a significant part of the total Hungarian industrial export.

The paper discusses the main points of a necessary innovation and investment policy for the bus industry which can adapt itself to the changes of the world economic situation. Finally the work examines the risk characteristics of the above innovation and investment policy.

János KOZMA

Dr. István MAGYAR

Prof. Dr. Pál MICHELBERGER

Dr. Béla SÁLYI

Dr. Péter VÁRLAKI

H-1521, Budapest