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# **CROSS-ROADS AND FORCED TRAJECTORIES IN MARKET-ORIENTED TRANSITION: THE CASE OF THE HUNGARIAN FOOD INDUSTRY**

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## **ABSTRACT**

The Hungarian food industry plays an important role in Hungarian foreign trade. Based on stable former COMECON exports, considerable state subsidies and safe market positions, the food industry has been developing rapidly during the last decades. The rush collapse of COMECON, declining domestic purchasing power, and import liberalisation have created a new situation. This article proves that, in the re-construction of the food industry, the main emphasis should be placed on improvement of competitiveness. Using Porter's approach, the utilisation of primary resources (agro-ecological potential, capital and living labour), market structure, company strategies, the domestic food market and the role of other branches connected with the food industry are analysed as elements of competitiveness.

It is pointed out that a fundamental condition of increasing competitiveness is to exploit the possibilities arising from the present comparative advantages more expediently, to stimulate competition between the participants in the food industry, to build up the domestic food market and to develop other fields connected with the food industry, placing a special emphasis on material and financial infrastructure as well as on collective marketing activity.

## **KEYWORDS:**

COMPARATIVE ADVANTAGES, RESOURCE UTILISATION, COMPETITIVENESS, PRIVATISATION, FOOD CHAIN, VERTICAL INTEGRATION

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## **INTRODUCTION**

The analysis of the Hungarian food industry (Table 1) enables one to study the problems of economic transition in Hungary, because

- this is the biggest sector of Hungarian industry;
- it plays a determining role in satisfying domestic demand;
- the efficiency of food-product export is better than in most parts of the Hungarian economy (OECD 1993), which is why the food industry export is of vital importance from the viewpoint of the external balance of the national economy; and
- most agricultural products are processed in the food-industrial sector, so the

competitiveness of the food industry is an important factor in rural development and in employment as well.

**Table 1.** The role of food industry in the Hungarian national economy, 1995

number of jobs in the food industry	139.000
share of food industry in employment	3.8 %
gross output of food industry	5.3 mrd USD
share of food industry in GDP	4.5 %
gross value of fixed assets in food industry	2.9 mrd USD
share of gross value of fixed assets in food economy as a percentage of industry	13.5 %
export of food industrial products	1.71 mrd USD
share of food industry in Hungarian export	15.1 %
import of food industrial products	0.72 mrd USD
share of food industrial products in Hungarian export	1.2 %
average self sufficiency level	125.8 %

Unlike the other sectors comprising the national economy in managing the transition to the market economy in Hungarian agriculture and the food industry, there were some important, profound changes in the direction of the market-economy (e.g. important role of household farming, competition between agricultural production systems, food processing firms acquiring ownership of agricultural producers) from the mid-sixties, long before such reform was seriously considered in the food economy of other so-called socialist countries or other branches of the Hungarian economy. Privatisation first started in Hungary and then in former COMECON states, and among the first privatised firms there were numerous food industry enterprises. The seven-year experience of privatisation gives one a good chance to comparatively evaluate various techniques of privatisation and to determine the most important characteristic features of behaviour of privatised companies.

The recent development of the Hungarian food industry is hard to understand without a brief overview of recent development in the Hungarian food industry. Table 2 sets out the main milestones in the development of the Hungarian food industry. The comprehensive work of CSIZMADIA and SZIKELY (1986) analyses the development of Hungarian agriculture, the food industry before the reform wave at the end of the 1980s.

After the change in social and economic paradigms (change from a centrally planned and regulated economy to a market economy), the Hungarian food industry is faced with numerous new problems and challenges. At the same time, drastic changes in the environment of the Hungarian national economy are also taking place. Rush and unpredictable collapse of COMECON, the emergence of the European Single Market and the increasing need for import liberalisation (as a consequence of Hungary nearing entry into the EU and the formation of WTO) sharpen the competition not only in export markets, but also in the home market. These processes increase the need and importance of an up-to-date analysis of competitiveness in the Hungarian food industry.

The aim of this article is to analyse the interrelation of economic transition and competitiveness in the case of the food industry. Porter's model was used as a tool for analysis in order to determine the competitiveness of the Hungarian food industry.

**Table 2.** Some milestones in recent Hungarian political and economic development

1956	military repression of the Hungarian revolution against the Soviet-type economic and political system	end of delivery obligations for farmers and co-operatives
1962	formation of trusts and large enterprises	agricultural collectivisation completed; long-range treaties with COMECON member states on division of labour
1968	introduction of New Economic Mechanism (partial autonomy of state-owned enterprises, directives to liquidate the trust-system)	increasing role of household farming in agriculture; introduction of agricultural production systems; development of food processing in agricultural co-operatives
1973-1975	first signs of foreign-trade imbalance in Hungary; beginning of Hungarian foreign debt-increase	increasing of food export into COMECON member states
1978-1985	increasing foreign-trade balance problems; political decision on export-oriented growth of economy	liquidation of first trusts in food industry; beginning of liberalisation of export channels
1985-1987	operation of commercial banks separate from the National Bank; tax reform; introduction of Personal Income Tax and Value Added Tax	abolition of consumer price support of food-industry prices
1989	communist party removed from workplaces; orientation into the direction of the establishment of market economy	import and export liberalisation, privatisation begins
1990	first free elections	privatisation of state farms; the creation of agricultural co-operatives begins
1991	collapse of COMECON	price liberalisation is practically complete; drastic cuts in subsidies to firms
1995	severe problems in Hungarian budget; emergence of financial measures for stabilisation	domestic purchasing power declines by 10%; unemployment reaches 9%

In his publication "The Competitive Advantage of Nations" (1990), the well-known Harvard economist Michael Porter outlined a new approach for the socio-economic system of competitive branches in countries, and their influence on international competitiveness. In Porter's model, four interrelated sets of factors determine the competitive strength of branches. The four determinants are:

- factor conditions
- demand conditions
- firm strategy, structure and rivalry
- related and supporting industries

With the help of this framework the article analyses the main features of the Hungarian food industry, and outlines possible development strategies.

The data applied for analyses wherever not indicated has been based on the database of the Hungarian Central Statistical Bureau (H.C.S.B.).

## **THE FACTOR CONDITIONS OF THE FOOD INDUSTRY**

### **Agro-ecological potential and its utilisation**

In terms of the cost structure of the food-industrial production, the costs of the raw materials play a determining role (40-90% of the whole production-cost depending on the

grade of processing), so the agro-ecological potential and the level of agricultural production are significant factors in food industry competitiveness. The level of Hungarian agro-ecological potential is rather high (CSETE, 1980), but this competitive advantage is steadily decreasing because of environmental pollution. The obsolete technology used in Hungarian industry and transport, the low socio-economic culture of waste material disposal and the intensive pressure of the Western-European governments on their firms with environmentally risky activity to relocate their plants into less developed countries (e.g. Central and Eastern Europe) exercise a harmful effect on the natural environment of agricultural production, but the agriculture itself is an important agent of pollution, too. In the race for high yields, the Hungarian co-operatives and state farms often used so much fertilisers that the chemical balance suffered a drastic change, and the soil acidity increased by 0.6 pH (value between 1980 and 1988; SARKÓZI, 1992). From the beginning of the agricultural transition process, numerous new farmers began agricultural production with hardly any experience in the field of using agrochemicals, but with a strong determination to get as much yield from as little land as possible. This situation underlines the importance of building up-to-date extension service networks.

Decreasing of agriculturally utilisable land is an important and unfavourable phenomena of the last decades. After World War II, hardly any market for land existed in Hungary. The basis of land evaluation was an estimation of land productivity from the nineteenth century. This confused situation resulted in a relatively low land price. According to expert estimations, the land price in Hungary is about one tenth of the price of the same quality land in Austria. The cheap land has not been an effective economic means to save it and to protect it from urbanisation and industrialisation.

The efficient use of natural resources is determined by the structure of economic activities, but the geographical location and product-portfolio of agricultural production, reformed after World War II, was often created by the priority of the political sphere, and not by principles of rational resource utilisation. Some examples are as follows:

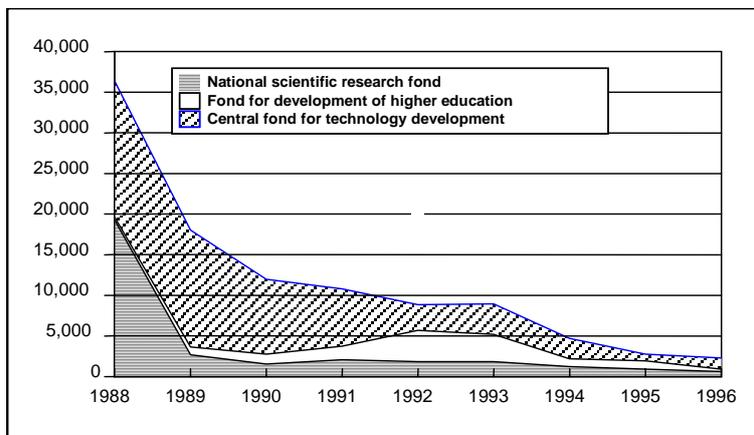
- inadequate geographical distribution of various agricultural activities, not taking into consideration the agro-ecological conditions (e.g. in terms of numerous fruit and wine plantations, certain regions were faced with a high levels of frost hazards);
- using a one-sided and/or an obsolete variety and sorting structure (e.g. corn varieties with high productivity, but low levels of product quality, due to expired varieties) most feed is converted into fat, and not into meat in pig production.
- low utilisation of special agro-ecological possibilities in marketing activity (e.g. there is no up-to-date system of origin certification in Hungarian wine-making and this is the main cause for the Hungarian wines being 50-70% cheaper in Western European markets, than wines of approximately the same quality, originating from countries with a sophisticated EU-conforming certification system).

## **Labour**

Numerous branches of food industry production are labour (and often knowledge) intensive. That's why the human factor in quality and productivity is much more important than in branches where the importance of manpower is expressed to a lesser degree. The labour force is relatively cheap and not too difficult to motivate, but this competitive advantage is diminishing due to the high personal income tax rate as well as the high social security and compulsory pension rates (the average personal tax burden in July 1996 was 28%). The activity of joint ventures in the food industry offers a good possibility to draw comparisons with quality of manpower in developed countries. Most joint ventures established in Hungary are by and large satisfied with the quality of manpower, and there is more of a need for

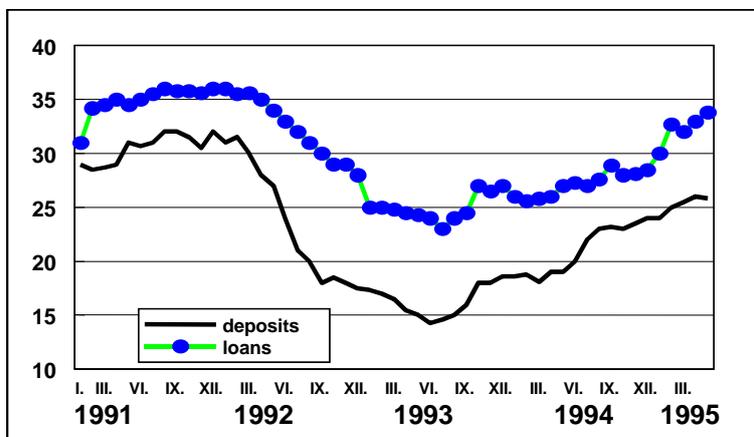
training Hungarian employees in order to help them adapt to the requirements of a modern firm rather than upgrading their level of skills or knowledge. The only exception is the lack of working knowledge of foreign languages and marketing. The basis of the high quality of human resources is the traditionally rigorous Hungarian education system. Basic education and vocational training are at an acceptable level. The development of the Hungarian school system is seriously jeopardised by an increasingly dramatic financial constraint. In the fields of utilisation of food science results there are important research institutes and departments for basic and applied research which are at an international level, and which to an increasing degree, orientate their activities toward applications in practice. The drastic decline of expenditures towards scientific research considerably threatens the high level of education and research.

**Fig. 1.** The decreasing of financial means for R + D in Hungary million Ft (in 1990 real value)



The infrastructure as a part of the environment of the food industry is unevenly developed. The telecommunications system is continually developing at a rapid pace, but the quality and price of transport facilities leave much to be desired. Secondary roads and railroads are of a relatively poor quality, and there are only five highways. There is a lack of know-how in financial infrastructure.

**Fig. 2.** The deposits and loans interests rates at less than one year maturity weighted average of interest rates (%)



Capital is particularly lacking in the Hungarian economy as a whole. The causes and macro-economic aspects of this question are analysed in detail in literature (e.g. DEAK 1996). From the viewpoint of enterprises of FI it means, that it is rather difficult to obtain bank-credit, and the interest rates of enterprise credits are rather high (in July 1996, the weighted average of interest rates of credits of less than 1 year maturity was 27.9 %). Due to the technological process, there is a rather limited possibility of applying just-in-time logistical systems in FI, and the enterprises have not enough capital to finance the stocks, that's why there are serious liquidity problems.

## DEMAND CONDITIONS FOR PRODUCTS OF THE FOOD-INDUSTRY

It is generally accepted that the level and sophistication of home-demand plays a decisive role in the international market of a given industry.

**Table 3.** The Hungarian consumption of some selected foods and Hungarian consumption as a percentage of the given product consumption in some developed European states

	Hungarian consumption (kg/ head/year)	A	D	DK	F	I	GR
<b>1961</b>							
sugar	30.1	77	92	59	99	123	207
honey	0.1	13	13	50	50	100	14
fat	23.9	81	79	58	86	126	106
animal fat	22.6	101	122	74	219	655	1027
vegetable oil	1.3	15	11	11	16	10	8
potato	95	112	72	78	82	175	299
apple	18.2	32	76	108	198	81	106
orange	0.6	6	4	8	5	5	2
<b>1971</b>							
sugar	37.4	91	104	72	90	125	159
honey	0.2	18	20	100	67	200	20
fat	29.5	86	84	64	86	101	90
animal fat	28.6	144	131	73	221	515	1276
vegetable oil	2.7	21	22	24	28	14	12
potato	72.1	113	70	84	75	173	141
apple	20.9	57	52	79	119	110	176
orange	2.2	14	11	15	15	8	9
<b>1981</b>							
sugar	38.6	93	100	84	111	115	124
honey	0.3	16	25	75	100	100	33
fat	35.7	145	95	76	86	103	97
animal fat	29.2	41	152	96	220	365	1217
vegetable oil	6.5	96	49	59	44	31	30
potato	55.6	92	73	72	78	159	69
apple	25.4	70	105	176	135	142	140
orange	2.4	11	15	10	14	9	6
<b>1992</b>							
sugar	39.7	101	111	102	122	134	116
honey	1.1	77	77	333	333	275	83
fat	40.6	96	103	81	88	89	93
animal fat	33.1	164	159	143	265	97	871
vegetable oil	9.6	52	76	83	116	64	36
potato	56.1	91	74	77	70	77	69
apple	22.7	43	43	103	122	150	93
orange	2.2	8	8	19	9	6	4

Source : FAO, AGROSTAT

Contrary to most Central and Eastern European countries, the food shortage in Hungary was eliminated from the beginning of the sixties (Table 3). The Hungarian food consumption is too quantity-oriented, the energy-intake is comparatively high, the life expectancy in Hungary is one of the lowest in Europe, and this tendency, contrary to the general European development, is a negative one. The unfavourable changes in the average lifetime can be partly explained by the unhealthy food consumption patterns (ANON: Food and Agriculture in Hungary, 1991).

After the continuous increase in standards of living from the beginning of the nineties, the real income sharply declined, mainly due to serious economic problems.

**Table 4.** Household income and consumption indices (1950 = 100 %)

year	real wage - index per wage earner	index per capita real income	index per capita consumption
1960	154	154	152
1970	199	245	228
1980	243	333	314
1989	227	385	358
1993	193	343	329
1994	189	341	319
1995	171	296	302

**Table 5.** The difference (in %) between the per-capita consumption between lowest and highest income sectors in Hungary

Product	difference in consumption (%)
pork	181.4
beef and veal	294.3
edible offals	191.7
game meat	170.0
fish	257.4
fish products	244.2
poultry	177.5
salami, sausages, ham	374.2
other meat products	191.3
eggs	170.2
milk	131.2
cheese	547.9
butter	165.1
edible oil	189.8
margarine	242.0
fats and oils, total	166.7
chocolate	237.1

The most important distinguishing features of the current market situation in Hungary are as follows:

Parallel with the decrease of aggregate purchasing power, there has been an increasing diversification of demand. After the long decades when personal revenues were equalised the diversification of purchasing power increases, there has also been an increasing

pauperisation and an increase in primitive capital accumulation. However, the lack of a middle class has strongly been felt. While incomes at the upper end of distribution increase, social policy at the lower end has not been developing sufficiently. This segmentation mirrors in considerable differences in consumption (Table 5).

The considerable grey and black economy means a growing problem for FI. There has been an increase in smuggling and illegal turnover for the goods subject to governmental inland revenue.

The excessively high level of governmental taxation has created a considerable difference between home-and foreign prices and this has been an incentive for smuggling and illegal trading. The result is the decrease of aggregate revenue at product-groups of coffee, spirits, tobacco, etc, both at the enterprise and national-levels.

Finally, there is a low standard of consumption culture for a wide variety of products. This low level of consumption-culture at a wide variety of products is an effective barrier for market and image building.

## **FIRMS STRATEGY, STRUCTURE, RIVALRY**

Until the end of the so-called socialist system the economic environment of firms did not promote the efficient work of enterprises of FI. The enterprises had to adjust to distorted prices. This was an extraordinarily important problem in export-oriented industries, because these industries exported mainly in COMECON countries, and the prices of their products were determined politically. This system gave a wide freedom for Hungarian governmental organs to "compensate" these distortions by subsidies. Under these conditions the incentive to innovate in terms of new products and product quality was extensively weak. Under these conditions the Hungarian firms followed a mixed strategy, according to various conditions of different market segments.

**Table 6.** Strategies of Hungarian food industrial firms in eighties

<b>Market segment</b>	<b>Strategy</b>
Former Soviet member states	quantity oriented production
Developed market economies	gross income maximisation
Home market	net income maximisation

The Hungarian deep - freezing industry exported extensively into the EU - member states, and co-operated with leading European firms, e.g. Findus Co., so in this industry the demand-side incentive towards improvement of production has been expressed to a greater extent.

The collapse of COMECON and the privatisation of the predominantly state-owned firms caused a drastical change in firms` structure and strategy.

The main objective when privatising firms is to increase their productivity. There is an intense debate about the appropriate mechanism for privatisation, and the consequences of alternative approaches for economic performance. Many different mechanisms are under discussion. The standard approach used in past privatisation elsewhere in the world has been to sell shares in firms to the public (foreigners may or may not have been allowed to participate). This approach is inevitably very slow. The existing financial assets of domestic residents are small relative to the value of the firms to be privatised, based on rates of return in Western financial markets.

As a summary of debates, concerning the various possible principles, ways and means of privatisation, the favourable and adverse aspects of change of ownership table 7 could be constructed.

**Table 7.** Comparative analysis of various techniques of food industrial privatisation

<b>Governing principle and method of privatisation</b>	<b>Advantage</b>	<b>Disadvantage</b>	<b>Remark</b>
Re-privatisation "back to original owners"	morally supportable	<ul style="list-style-type: none"> <li>- hard to identify the original owners</li> <li>- considerable changes in property from switching to public ownership, numerous new plants</li> <li>- no additional capital - inflow</li> </ul>	supported by populist parties and politicians
Privatisation by selling the papers of the company on stock exchange	<ul style="list-style-type: none"> <li>- transparent</li> <li>- easy,</li> <li>- fast</li> </ul>	most of enterprises are in a very bad financial situation, they are not fit for realisation of exchange	At present only 8 food industrial enterprises are in Budapest stock exchange
Privatisation by selling of the company for investors through State Property Agency	<ul style="list-style-type: none"> <li>- possibility of capital inflow</li> <li>- possibility of governmental control</li> </ul>	less transparency	
management buy-out	<ul style="list-style-type: none"> <li>- creation of real owners, who are interested in increasing profitability</li> <li>- in numerous cases high professional quality</li> </ul>	workers of former state-owned companies had no possibility of accumulating enough capital to buy the plant-use on preferential credit systems: no capital inflow, no new technologies	utilised only at privatisation of small-scale enterprises in milling, distillery and grain milling industry in numerous enterprises strong emotions against members of former "communist establishment"
employee share co-ownership program	morally supportable, convenient for political parties, targeting the working class	<ul style="list-style-type: none"> <li>- workers of former state-owned companies had no possibility of accumulating enough capital to buy the plant-use on preferential credit systems: no capital inflow, no new technologies</li> <li>- too many owners-the material of interest is too weak</li> </ul>	only at small-or medium size some companies has been used this method, in first place to "camouflage", that in practice this was an MBO transaction
foreign investors	<ul style="list-style-type: none"> <li>possibility of</li> <li>- capital inflow</li> <li>- new management and management techniques</li> <li>- new technologies and know-how</li> <li>- obtaining new market possibilities</li> </ul>	<ul style="list-style-type: none"> <li>danger of</li> <li>- speculation (only short-run profit maximisation, extravagant exploitation)</li> <li>- elimination of former concurrent by production decreasing</li> </ul>	main technique of privatisation.
agricultural producers	possibility of homogenous interest system along the food chain	<ul style="list-style-type: none"> <li>- no capital inflow,</li> <li>- transition in agricultural production sphere-no real owners</li> </ul>	

The increasing imbalance of the budget and the crescending management, marketing and

financial problems owned by food industrial enterprises underlined the importance of role of foreign capital in Hungarian privatisation. Contrary to the previous expectations, the foreign investors interested primarily for branches

- with safe home market (e.g. tobacco ind.)
- single product lines (e.g. sugar ind.)
- standard technology (e.g. starch ind.)and
- mono- or oligopolistic position (e.g. brewery ind.)

**Table 8.** The share of foreign capital in Hungarian food industry

Branch	Share of foreign capital in the registered capital (%)
Meat industry	27.70
Poultry proc. Industry	39.75
Dairy industry	45.09
Canning industry	42.09
Milling industry	4.07
Baking industry	25.09
Sugar industry	33.97
Confectionery industry	94.94
Distilling industry	68.54
Winery industry	39.38
Beer industry	72.05
Soft drinks industry	95.99
Tobaco industry	96.32

With the collapse of COMECON, three main strategy-types could be determined in the Hungarian post-harvest processing sphere:

- the management does practically nothing, but instead waits for possible changes in ownership or market positions. In this case bankruptcy is practically unavoidable. In some enterprises the passivity of management resulted in a "melting away" of the material resources of the firm.
- the firm primarily concentrates on the home market, often with intensive product and/or process innovation. This strategy could be only a short-term solution, because the home market is nearing saturation.
- the management of the firm tries to take an active part in privatisation and, by using existing connections with possible investors; does everything to stabilise the market positions of the firm.

### **The structure of branches**

It has been generally held that the concentration of the Hungarian FI is excessive: the Hungarian food industrial companies are "overweight" (SZABŐ T. 1993) and privatisation and concentration go hand in hand. On the basis of the Hungarian and international experience, neither statement proves to be true. A closer examination of the rate of concentration of food industrial firms shows that the degree of concentration in the Hungarian food industry is not much higher than in developed European states and the concentration shows considerable variation according to sector. Comparative analysis of concentration ratios for the five largest food companies in the UK, Germany and Hungary, shows that the statements

concerning the "extremely high" rate of concentration in the Hungarian FI are not true.

Since market forces, not central planning have led to a highly concentrated FI in the UK and FRG, the current prevailing wisdom in every former COMECON state that 'small is beautiful and economically efficient for the time being is not borne out by experience. It can be stated that some classes of FI products are more prone to be produced from concentrated producers. This is the case, for example, in industries which:

- are easily mechanised and automated (e.g. sugar beet processing, vegetable oil industry, brewing industry)
- innovation- and research - intensive (e.g. biotechnology, yeast and starch processing)
- need intensive marketing activity (e.g. tobacco industry)

Industries oriented to satisfying local demands (e.g. baking industry) or producing of specialities (e.g. wine making) seem to be less concentrated.

If a market is a more effective mechanism than central planning for the efficient allocation of resources, then, conceivably the Hungarian FI as it is presently constituted has a structure of concentration which is ill -suited to the demands of a competitive international economy. For this reason the efforts to increase competition and competitiveness by establishing numerous small-scale plants in the Hungarian food industry may be misguided. The contradictory character of this policy can be clearly seen if the Hungarian meat industry is taken as an example. Over the last four years more than 500 small-scale meat processing plants have been established, often with obsolete technology and poor hygienic conditions, while at the same time the capacity of large meat processing plants is only utilised at an average rate of 20-30 %.

Before the start of the privatisation process one of the main hopes of the producers was that, through privatisation, they would obtain ownership shares in food processing companies, thus reconciling the interests of agricultural producers and food processors. In practice this goal could not be achieved for the following reasons:

- the agricultural producers are not financially able to improve the economic position of food industrial plants, so the buying of shares in food industrial plants for vouchers does not lead to any capital inflow into the food industry. As mentioned above, the majority of Hungarian food processors are rather unfavourably placed, and so the ownership change has made the economic situation of agricultural producers even worse.
- what is worth underlining is the fact that in the years of a planned economy the basic rules of the game in a share-company were not very well understood by Hungarian agricultural producers. In a share company the basic principle of the co-operatives 'one member-one vote' does not exist. So if the agricultural producers do not hold a majority of shares their economic interests cannot be protected effectively.

As a summary of this analysis of concentration in the FI it seems to be inadequate to believe that the small- and medium scale processors are capable of taking an active part in international economic competition in most sectors of the food industry. The only way to create a force balance between agricultural producers and food processors is the establishment of a modern institutional environment (effective product councils), legal basis (enforcement of Low Competition) and economic conditions (the majority of subsidies - e.g. export subsidies - should be given to agricultural producers, not to food processors).

## **RELATING AND SUPPORTING INDUSTRIES**

### **VERTICAL RELATIONS IN THE FOOD CHAIN IN A PLANNED ECONOMY**

#### **Integration of small producers**

It is often the case, that Western analysts use the term "command economy" to describe the agribusiness (and vertical relations in the food chain) of Eastern and Central European countries as a whole, but in cases the situation is much more complicated. One of the most important characteristic features of the Hungarian agribusiness during the period 1965-1989 was the symbiosis and division of labour between large -scale agricultural producers (co-operatives and state farms) and small producers. The main elements of this symbiosis were as follows:

- the high share of small-scale producers (household plants and auxiliary farms), working in close connection with large cooperatives and state farms, was one of the main resources of rush development of Hungarian agriculture (e.g. in 1980, the share of small producers in vegetable production was 55%, fruit production was 58%, and pig production was 60%).

The state farms and cooperatives often integrated and organised the in-and output relations of small-scale producers so a special type of effective cooperation was achieved between the various forms of agricultural production. The way in which large-scale co-operatives and household farms complemented each other is especially manifested in animal husbandry. Household animal husbandry was mainly based on the fodder production of the collective farm. The members received the fodder either as additional income or bonus, or they purchased it from their cooperative. At the same time, manure from the household had been utilised by the collective farm. The cooperative members sold their animals collectively, on the basis of contracts arranged by the farming cooperatives. Within the framework of the contract, the collective farm had to purchase the necessary basic material and fodder and give expert advice.

In terms of horizontal integration of cooperatives and state farms, the development of Hungarian agriculture played a decisive role in the horizontal integration of agricultural producers into production systems (DIMINY 1991), because these voluntary organisations accelerated innovations, contributed to the technical and technological development of Hungarian agriculture and often integrated the market activities of the producers.

The above forms of integration in the agricultural sphere contributed decisively to the stability of raw material management in the food industry.

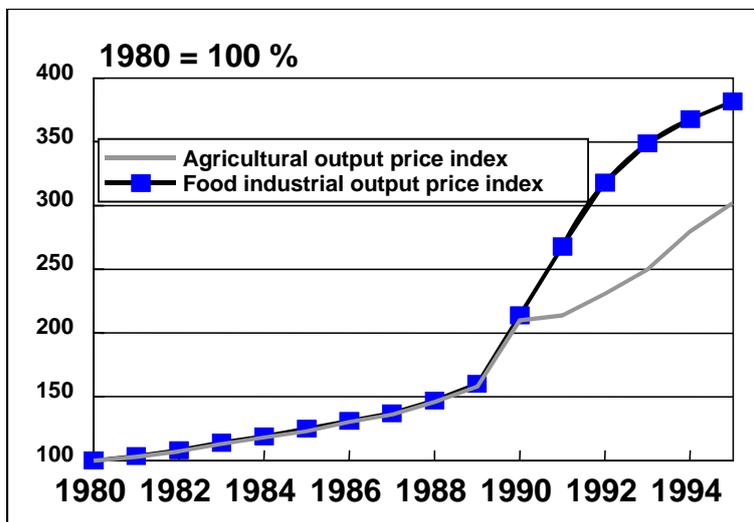
#### **Relations between agriculture and food processors**

During the period 1948-1956 farmers in Hungary were obliged to hand over their produce to the state collecting organisation, generally for prices lower than production cost, but by the late fifties the agricultural marketing contract became "a mean of planified guidance" (EΦRSI, 1975), and the Civil Legal Code codified it as "an independent civil legal contract", so except for some peculiarities, derived from the special nature of agricultural production, the Hungarian business which had been low over the last thirty - eight years considered the turnover of agricultural products in the same way as that of any other goods, with contracts formed on the basis of the independence and equality of the partners for the equal exchange. This has been a very important specific feature of Hungarian agricultural policy in comparison with other planned economies.

Although the vertical relation between agricultural producers and processors has been the

focus of much debate, during the past three decades it has proved impossible to achieve a well-balanced relationship between agriculture and food industry (Illis and Szakal, 1995). This was one of the main reasons for the weaker performance of Hungarian vertical integration compared with other European countries. It was often the case, that when the weather conditions were favourable for agricultural production, the food processors had a very good bargaining position, but when there was a scarcity of raw material, the agricultural producers had a much better position than the processors. This imbalance of vertical relations was very characteristic for the Hungarian food chain, because there was not a coherent legislative background of agricultural market-regulation and a considerable share of subsidies has been given to food producers (e.g. as export promotion subsidies) rather than to agricultural producers, as is the case in most developed countries. This was a ground for debate, because both parties appreciated that the existing system is not in harmony with their economic interests. Upon analysing the problem over a long-range perspective, it can be seen, that the producer's prices of agricultural raw materials and output prices of the food industry have changed practically simultaneously, so the price-disparity (if there was any) has not increased during the period 1980-1990 (Fig.3).

**Fig. 3.** Change of agricultural and food industrial output price indexes in period 1980 - 1994



Another indirect proof to overthrow the theory that extra profit was achieved by Hungarian agriculture or by the food industry is that if any party had accumulated extra income, its economic position should have improved, while the economic position of both agriculture and the food industry drastically worsened during the past years.

### **NEW PROBLEMS OF VERTICAL RELATIONS BETWEEN HORTICULTURAL PRODUCERS AND ENTERPRISES OF HPPI**

After the political changes in 1989-1990 the new Hungarian parliament began to establish an economic environment for the free market economy in agribusiness. This was based on the private ownership of land, and on allowing equal possibilities for family farms and cooperatives.

The new land - property relations induced considerable changes in vertical relations too. The most important change has been the increasing imbalance of relations between horticultural producers and HPPI. From this point of view it is important to underline the fact, that the

quality and quantity of the output from large-scale horticultural producers was relatively stable, because:

- the production structure of cooperatives and state farms were relative by rigid, not reacting quickly on market events
- the integration of small-scale producers by co-operatives and state farms contributed to the stabilisation of the output-structure of small scale producers
- most cooperatives and state farms had a diversified product-portfolio, so a change in the economic position of single products did not cause a rapid and drastic change in the economic position of the agricultural producers as a whole.
- the large-scale producers accumulated a considerable number of highly qualified specialists, the know-how required for standard quality production, and the minimum hardware for quality control, that's why the cooperatives and state farms had the opportunity to produce relatively even-quality products.

The attitude of small-scale horticultural producers considerably differs from behaviour of large scale producers, because

- the product-portfolio of small-scale farms is much narrower, than in case of production co-operatives, so the change of cost/benefit ratio for one or more products drastically changes the economic position of the farm
- the small farms respond to market changes more rapidly, because these farms have fairly limited financial means, so they do not have the resources for carrying out a long-range strategy.

The decline in income in the horticultural and HPPI means an effective barrier from the point of view of efficiency and rentability of production, because

- there are no funds for the modernisation and improvement of the biological basis of production. For instance, the new vine planting was 100 ha and the fruit planting was 300 ha in 1994.
- in recent years farmers have tried to improve the cost/benefit ratio by reducing the input level. The area under irrigation and the use of artificial fertilisers has radically decreased (the average fertiliser use was 37 kg/ha in 1994). The latter is not such a problem at the moment, because over the last two decades there was an overuse of artificial fertilisers, but in the medium or long-term this could be a real problem.

When analysing the dynamics of horticultural and HPPI output prices, it is obvious that the difference between horticultural and HPPI prices increased. This phenomenon can be explained by the fact, that the bargain position of horticultural producers has considerably worsened, because:

- the disintegration of the horticultural production sphere considerably increased, so that the balance of power between large enterprises of HPPI and horticultural producers broke down.
- political representation of economic interests of horticultural producers has not been properly organised, because numerous organisations have professed to represent the Hungarian countryfolk, but in practice the forces have become too fragmented.
- high rates of interest served as incentives for horticultural producers to sell their products for processors as soon as possible.
- import liberalisation often meant a safe and (due to heavy subsidisation of agricultural products in EU-member states) cheap raw materials.

Under these conditions the strategy of HPPI towards the horticultural producers can often be characterised by low prices of horticultural products.

Summarising the above facts it can be stated, that the decreasing of net income of production means an increasing problem, because the competitiveness is declining. This underlines the importance of economic restructuring of the Hungarian horticultural verticum.

During last decades the enterprises of HPPI had contacts only with a restricted number of horticultural producers, but after the transformation of agricultural cooperatives into private farms, the number of market participants drastically increased. This emphasises the importance of advisory work and extension services.

## **THE INDUSTRIAL BACKGROUND**

The supporting industries developed comparatively slowly and one-sidedly during the years of centrally-planned economy and distribution of work within COMECON states. The industrial-input producers often had a monopolistic position (e.g. chemical or paper industry) or are rather obsolete and fragmented (e.g. in Hungary, 11 firms produce an annual 350 million tins for the canning industry. In a developed country a single firm is enough to produce such a quantity.)

In some sectors, privatisation gives new perspectives for technical development using foreign working capital (e.g. in the paper industry), so from the viewpoint of international competitiveness, Hungarian HPPI will have a better background than in the past. The development of the small-industry sector is an effective tool for the satisfaction of small-scale producers who produce products for the niche market on the basis of specific orders (e.g. small capacity printing houses for label printing).

## **SUMMARY**

The strengths – weaknesses - opportunities - threats (SWOT) analysis of Hungarian FI offers a good possibility to evaluate the current position of this branch (Table 9).

The most important functional partial strategies of food industrial firms are summarised in table 10.

It can be seen, that there is a possibility for the Hungarian food Industry to remain an export-oriented, dynamic branch of economy.

Porter's theory of competitiveness determines four stages in the development of competitiveness: the factor-driven, investment - driven, Innovation and welfare-driven stages.

The danger of this, of course, is that multinational enterprises will regard Hungary as a temporary place of production, providing cheap basic factor conditions, which can be left as quickly as better opportunities are provided elsewhere.

The state should support this process by market conforming actions, while the food industrial producers must be organized in such a way, that they could build a counterweight in activities of multinational firms, creating a more intensive market-competition. The most important goals and means of Hungarian economic policy from the viewpoint of the food industry are summarised in table 11.

**Table 9.** SWOT analysis of the Hungarian food industry

<p><b>STRENGTHS</b></p> <p>favorable agro-ecological potential traditions of horticultural production</p> <p>technically and technologically highly qualified human resources</p> <p>considerable experience and well established brand names in the former Soviet member- states</p> <p>large production capacities with numerous comparatively modern machines</p> <p><b>POSSIBILITIES</b></p> <p>Along the basis of comparative advantages, increases in the market share in developed states</p> <p>improvement of financial and market positions by privatization</p> <p>improvement of positions in the home market</p> <p>product and process innovation</p> <p>better utilization the concept of up-to-date in-and output marketing</p>	<p><b>WEAKNESSES</b></p> <p>ineffective utilization of natural resources the economic position of horticultural production is rather weak</p> <p>lack of economic knowledge</p> <p>intensive price and promotion competition in these markets</p> <p>heterogeneous technical and technological level even within one line</p> <p><b>THREATS</b></p> <p>Increasing market defence</p> <p>the buyer buys brand name, and is not interested in development of production</p> <p>decreasing aggregate demand and increasing import competition</p> <p>increasing the technical and technological gap between the Hungarian production and international level</p> <p>further financial bankruptcies</p>
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**Table 10.** Functional partial strategies in the Hungarian food industry

inputs	general strategy cost minimisation and quality improvement at the same time
raw materials	increasing the integration of processors
industrial products	<ul style="list-style-type: none"> <li>- increasing the competition among suppliers, utilizing the possibilities for import liberalization</li> <li>- general rationalisation</li> <li>- increasing the qualification of employees</li> <li>- keeping the best specialists by all means at the firm</li> </ul>
financial position	mobilization of non usable fixed assets
human resources	in focus should be the increase of financial assists and market possibilities
former soviet member states	cost-orientation with special emphasis on standard quality, strong packaging and the increasing differentiation of society
developed states	Quality orientation
home market	product differentiation according to market segmentation

**Table 11.** The goals and means of economic policy in strengthening of competitiveness of the Hungarian food industry

goal	applicable means of economic policy
<b>Utilisation of resources</b>	
	giving up the state subsidisation of agricultural production on territories with adverse natural conditions development of an integrated informational system to determine the optimal geographic structure of agricultural production, taking into consideration the agro-ecological, economic and social aspects
optimal utilisation of natural resources	the agricultural support system should be reconsidered to promote not the export, but the development of biological-technical and technological background of food production better utilisation of specific agro-ecologic possibilities of production in image-building and application of certification system more rigorous environmental protection
development of human resource utilisation	stabilisation of economic environment of labor intensive agricultural production upgrading of higher education system by increasing the number of students and efficiency of education
utilisation and upgrading of know-how and production culture in food industry	better concentration of funds for R+D activities, promotion of industrial parks where it is possible, keeping up the production - culture in process of privatisation preference of privatisation techniques, joining to the capital inflow creation and strengthening of market institutions of agricultural and food industrial products ( system of common warehouses, stock and produce exchange)
increasing of financial resources of enterprises	decreasing of income taxes  abolition of inport-duties, burdening the import of food -industrial inputs ( e.g. tropical fruits, tins, machines)
<b>Development of home - demand</b>	
forcing back of the illegal food industrial production and trade	sophistication of means of struggle against the "black economy"
increasing of aggregate food - demand	modification of personal tax-revenue system, with a special emphasis on families with three or more children
increasing the knowledge of food consumers concerning the healthy food consumption	working out and implementation of an integrated food and nutrition policy
<b>Branch structure, corporate strategies and rivalry</b>	
consolidation of the ownership structure	ending up the process of privatisation where necessary, setting up holdings for assets (property) administration, and re-structuring
selective promotion of small and medium scale enterprises	extension service and entrepreneur-educationsubsidisation of introduction of TQM, ISO systems and environmental auditing
increasing the effective (working) competition	import-liberalisation, where necessary, effective merger control and low enforcement in field of competition policy
<b>Joining and supporting branches</b>	
development of logistical infrastructure	modernisation and development of road and communication systems
export promotion	increasing the efficiency of economic diplomacypromotion of collective marketing activitiescountry image development
promotion of tourism	development of village tourism development of education field of village tourism

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