



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

**STUDIES IN  
AGRICULTURAL ECONOMICS  
No. 110.**



**Budapest  
2009**

---

## Studies in Agricultural Economics No. 110.

**The Studies in Agricultural Economics** is a scientific journal published by the Hungarian Academy of Sciences and the Research Institute of Agricultural Economics, Budapest. Papers of agricultural economics interpreted in a broad sense covering all fields of the subject including econometric, policy, marketing, financial, social, rural development and environmental aspects as well are published, subsequent to peer review and approval by the Editorial Board.

### Editorial Board

Popp, József (Chairman)  
Szabó, Gábor (Editor-in-chief)

Barnafi, László (Technical Editor)	Lehota, József
Bojnec, Štefan (Slovenia)	Magda, Sándor
Cruse, Richard M. (USA)	Mészáros, Sándor
Csáki, Csaba	Mihók, Zsolt (Associate Editor)
Fekete-Farkas, Mária	Nábrádi, András
Fehér, Alajos	Nagy, Frigyes
Fieldsend, Andrew	Szakály, Zoltán
Forgács, Csaba	Szűcs, István
Gorton, Matthew (United Kingdom)	Tóth, József
Heijman, W. J. M. (The Netherlands)	Udovecz, Gábor
Kapronczai, István	Urfi, Péter
Kiss, Judit	Vizdák, Károly
Lakner, Zoltán	

Manuscripts should be sent via e-mail to the Editor-in-chief ([aki@aki.gov.hu](mailto:aki@aki.gov.hu)). Instructions for the authors can be found on the website of the Research Institute of Agricultural Economics: <http://www.aki.gov.hu>

HU ISSN 1418 2106

© Research Institute of Agricultural Economics  
1463 Budapest, POB. 944. Hungary

## **Strategic models, ownership and organisational changes in the Hungarian food industry<sup>1</sup>**

Kapronczai, István<sup>2</sup>

### **Abstract**

Based on statistical analyses of the financial data, the study showed that organisational instability characterised the period under examination. On average, change of ownership or of management, or even mergers or de-mergers occurred every 3.7 years. The “stable” periods are too short for implementing corporate activities based on an elaborated strategy, granting success both in the medium and long term. We have established the strategic models by which the enterprises could be ranked following the change of ownership or management. From among the four types, the asset depleting and the surviving strategies are definitely disadvantageous, but they accounted for more than 56% of the cases. The frequency of occurrence of the negative strategic models increased remarkably in the second half of the period between 1992 and 2006, while the occurrence of the positive strategies – optimising and push forward – dropped to half. It was established that any available reserves of the Hungarian food industrial structure were exhausted in the actual social and economic environment. Withdrawal of foreign capital from the country will continue. A further decrease of the registered capital, depletion of the assets and deterioration of the competitiveness are unavoidable. In the short term, supporting retention of the foreign capital, while in the medium and long term, encouraging expansion of the small and medium size enterprises may grant the opportunity for improvement.

### **Keywords**

food industry, structure, ownership, capital, strategic model

### **Introduction**

The food industry played an important role in Hungary’s economy during the past 100-150 years. In the Carpathian basin, excellently adapted for agricultural production, the ambition was conceived to place the products of agriculture on the markets with the highest possible degree of processing and with the highest added value. During the 20<sup>th</sup> century, new food industrial sectors were established that allowed the rapid development of an industry scale food processing sector. As a result, a food industry able to manufacture products – even if far from being of world class quality – in quantities exceeding the domestic consumption demand and living up to the challenges of the epoch developed prior to the change of regime in 1989-1990. And all this was founded on a well-developed agriculture.

Due to the processes that occurred in agriculture following the system change, a lack of conformity developed between the quality requirements of the Individual food industry sectors and the opportunities offered by a dispersed agricultural production base (Kerek, 2002). In addition, the co-operation relationships granting mutual advantages for the determinative participants of the product paths broke up.

Following the EU accession, the output of the food industry and the returns from sales showed decreasing trends, even at current prices. Its economic – and consequently eco-political – importance suffered remarkable decline. The share of the food industry’s output in comparison to

<sup>1</sup> The study underlying this article was prepared in the Research Institute of Agricultural Economics, edited by the author (Kapronczai ed., 2009). Bojtár–Lukácsik, Mónika; Felkai, Beáta Olga; Györe, Dániel; Kürti, Andrea; Székely–Raál, Éva; Tóth, Piroska and Vágó, Szabolcs have co-operated in the research.

<sup>2</sup> Research Institute of Agricultural Economics, Budapest, 1093 Zsil utca 3-5, kapronczai.istvan@aki.gov.hu

the total of the national economy fell from 12.5% of 1992 to less than half, i.e. 6%. While this sector provided nearly 9% of the aggregate employment within the national economy, it offered work to only 4.5% in 2006.

Also the income production capacity of the food industry continued to decrease. While in 1997, operating profits on HUF 100 returns from sales amounted to HUF 4.8, this rate was HUF 3.8 in 2003 and barely HUF 2.9 in 2006.<sup>3</sup> The industry's poor income position is all the same not primarily due to the low profitability of its actual production activity, but to the losses from financial operations. This is a consequence of the low capital supply and of the high credit demand resulting therefrom, due to the lack of capital investments. The entire food industry was characterised by growing indebtedness and by continuous decrease of the state subsidies, which started in 2002.

The negative tendencies were strengthened by the withdrawal of foreign capital from the sector. The foreign capital had a share of 32% within the total registered capital in 1992, exceeding 50% in 1995 and already 60% in 1997. No further remarkable growth occurred thereafter, the highest level was observed in 2000 (63%). Thereupon, the foreign share decreased dramatically, hardly exceeding 47% in 2006. The withdrawal of foreign capital from the country implied serious consequences also due to the fact that the domestic investors and entrepreneurs were unable to supplement the multinational capital withdrawing from the food industry. This had the consequence that quality changes of foreign capital almost coincided with the fluctuations of the sector's registered capital; that means, the amount of the food industry's registered capital fell at the same rate as the amount of foreign capital decreased.

During the research which served as basis for this article, our primary aim was to show some of the reasons for the decay through application of exact investigational methods. As the first step, we strived to establish what corporate strategies were followed by the different food industrial enterprises following certain "shock events"<sup>4</sup> (privatisation, ownership change, change of management, merger or de-merger). Whether the foreign owned companies typically strived for acquiring markets only and exclusively the domestic capitalists acted in the real interests of the Hungarian economy? Whether the different ownership and management changes can be determined or categorised that typically were connected with certain enterprise development strategies? And in the affirmative case, whether spreading of the schemes more advantageous for the food economy can be encouraged through application of eco-policy tools?

## **Database and methods**

Under the food industry, in this article, the production of food, drinks and tobacco is understood. The overwhelming majority of the data used for the calculations derive from the database maintained by the Hungarian Tax Authority (APEH). These were complemented by data collected from statistics, from the annual reports available at the Trade Court, and from interviews and publications available in the trade literature. The APEH database consists of the tax returns of the companies keeping their books through single and double entry accounting. The use of this database has therefore the consequence that our research is mainly focused on the larger enterprises having

---

<sup>3</sup> At the end of the period surveyed, about HUF 250 amounted to EUR 1.

<sup>4</sup> For the purpose of the research, only privatisation, change of ownership, change of management, merger and de-merger are considered as "shock events". In the original meaning of the word, several other shock events had an impact on the food industrial enterprises during the period surveyed – e.g. the Rouble crisis, exchange rate changes, decrease of demand in consequence of the restrictive measures etc. – however these were not concerned as forming part of the "shock effects".

a determinative role in the single speciality sectors, and also the findings apply principally thereto. This fact does not imply any difficulty in understanding the present processes, explained by the high degree of concentration – high CR indices (!) – of the industry.

The database was available in the form allowing its use for the purposes of our research for the period between 1992 and 2006. This time span has **a priori** determined the period to be covered by the research, which luckily coincided with the requirements set by the research objectives. Consequently, the analysis covers the time span from the period directly following the change of regime until 2006. The choice of 1992 as base year was also justified by the fact that both most important Privatisation Acts of Hungary (Act LIII of 1992 and Act LIV of 1992) were enacted in this year, and that the majority – 83% – of the privatisations in the food industry occurred in 1992 or in the subsequent years (Alvincz, Tanka and Udovecz 1994).

Nine speciality sectors of the food industry – meat processing and manufacturing of meat products, poultry meat processing, fruit and vegetable processing, manufacturing of dairy products, manufacturing of milling products and fodder-production, dried pasta production, brewing industry production, soft drink production and manufacturing of tobacco products – were involved into the research. Within the speciality sectors, when electing the companies to be involved, we strived to opt for the enterprises having determinative importance at the beginning and at the end of the period under study. In order to grant proper coverage in respect of the single speciality sectors' income, we planned to select up to ten of the largest companies at both dates (i.e. altogether 20) in each sector.

**The examination of the development strategies of the determining companies** is based on the analysis of dependent and independent variables. The independent variables are the above-defined “shock events” which can generate changes in a company's life.

The dependent variables include the corporate features changing in consequence of the “shock events”, thus for example the assets, the investments, the sales, the export returns, the staff number and the personal expenditures, the liabilities and their composition, the profit/loss categories and the financial indices. The main objective consisted in presenting the trends of the dependent variables' changes as a function of the events which occurred in the company's life and designated by us. Such a relationship has been determined for each enterprise separately, however the findings of the study are published here only in the aggregate, applicable to all companies included.

The relationship between the dependent and independent variables has been examined in a manner comparing the mean of the year of occurrence of the “shock event” (as subject year) and of the previous year to the average of the two years following the subject year. The study has been expanded to the entire scope of the assessed enterprises in a manner that all data related to the given independent variable – concerning the year of the event – were summed, and in this manner an event-index<sup>5</sup> was formed. (That means, not the indices of the single enterprises were averaged!) The value thus derived was compared to the sector-index of the population assessed relating to the same year, calculated using the above method.<sup>6</sup> From the comparison of the event-indices and the sector-indices we could establish by what percentage the increase or decrease of the given dependent variable was quicker at the companies where a determined independent variable occurred than in the entire scope of the enterprises involved in the study. This was called the “effect-index”. From the

---

<sup>5</sup> Thus the event-index presents how the variable concerned has developed in the average of the two years following the subject year in respect of the group of enterprises suffering the shock event against the mean of the year of the shock effect – the subject year – and the preceding year.

<sup>6</sup> The sector-index therefore demonstrates the changes of the variable concerned in respect of the total population in the average of the two years following the subject year in comparison to the mean of the year concerned – as subject year – and the year preceding that year.

annual results, a weighted average was calculated for the entire period under study<sup>7</sup>, including them in a result matrix. The analyses and tables were prepared on the basis thereof.

The important events (“shock events”) occurring in the life of the enterprises served also as starting point for the **strategic modelling assessment**. Similar to the method used for assessing the development strategies of the determinative enterprises, starting out from the year concerned, the next two years were compared to the average of the previous and the subject year and indices generated from the extent of changes expressed as a percentage. Ranking in the model groups was made on the basis of the index values. As in several cases the data required for each year under study were not available, we have assessed the year for which data could be connected, thus endeavouring to include the highest sample allowing to draw conclusions. During categorization, the events were ranked under the relevant strategic type if it complied with the requirements related to the model concerned. As the series of data to be used was often incomplete, one missing value was allowed.

### **Development strategies of the determining enterprises**

The number of the food industrial enterprises included in the research has slightly changed during the 15 year period, but in the aggregate it declined due to mergers. While 73 companies were assessed in 1992, the starting year of the study, this number dropped to 61 for the closing year (2006).

259 “shock events” concerning the companies under study occurred in the period between 1992 and 2006. 47% of the “shock events” concerned change of ownership. In 48% of the ownership changes the enterprises remained under domestic ownership, while in 41% foreign majority and in 11% foreign minority ownership was formed. It appears therefrom that foreign investors accepted minority ownership only on rare occasions; they rather strived for acquiring an ownership rate necessary for making strategic decisions. The number of “shock-events” concerning ownership was higher than the average in the years 1992-1997 and 2003-2004 (9 to 21 events/year); while it was remarkably lower (3 to 7 events/year) in the remaining years. This indicates that both the privatisation period and the period of the EU accession have remarkably rearranged the ownership relations of the food industry’s enterprises of determining importance.

In 38% of the “shock-events” a change of management occurred. From this, in 65% of cases Hungarians and in 35% of cases foreigners became company managers. The number of management changes presented a continuous increase during the years; while 3 to 7 events occurred in each year between 1992 and 1999, their annual number amounted to 4-12 between 2000 and 2006. During the privatisation period, and above all if domestic ownership acquisition occurred, the former management and its orbit were motivated in the changes, therefore the same team of professionals continued to manage the company even after the change of ownership. In several cases, also foreign investors acquiring ownership in food industrial companies maintained – for a while – the domestic management. Simultaneously however, the liberalisation of trade following the EU accession and the sharpening competition reinforced the endeavours to designate more competent management. Fourteen per cent of the companies reacted through mergers to the challenges, while de-merger occurred only in one case.

It comes clear from the above that the frequency of “shock-events” during the period following the change of regime exceeded the level justified by natural development. Instability in ownership and, to a lesser extent, in management characterised this period. At the food industrial

---

<sup>7</sup> The aim was to give greater weight to a year in which the given “shock event” occurred more than once!

companies under assessment, ownership or management change, or maybe merger or de-merger occurred in every 3.7 years, on average. These “stable” periods are too short for allowing even the outlining of a successful operation in the medium or long term along a well elaborated strategy. Short term thinking and the lack of perspective are direct consequences of such instability.

During the period assessed, there were in the aggregate 33 occasions when ownership change **resulting in majority foreign ownership** occurred among the companies involved in the study, while on 18 occasions the company acquired became the property of another foreign investor (second or second generation foreign proprietors).

Table 1 represents the effects of the change of majority ownership. In the aggregate, it allows the conclusion that the companies realised increasing returns with lower staff number but growing payroll in consequence of foreign ownership. They started intensive investment activities, while their financial position (long term liabilities, asset coverage ratio, indebtedness and liquidity index) as well as their efficiency (asset turnover rate, per capita returns, leverage) improved, and their dividend and tax payments decreased. After further sale of the reorganised company with more optimal operation and better asset position, the second generation foreign proprietors started already longer term developments of strategic character.

Table 1

**Majority foreign ownership was formed or re-formed in consequence of change of ownership**

Dependent variables	Sector-index	Majority foreign ownership maintained		Majority foreign ownership formed	
		Event-index	Effect-index	Event-index	Effect-index
Average staff number	0.97	1.02	1.04	0.84	0.86
Total assets	1.03	1.36	1.32	1.12	1.08
Investments	1.03	1.84	1.78	2.09	2.03
Long term liabilities	1.24	1.76	1.43	0.76	0.61
Added value	1.27	1.18	0.93	1.18	0.93
Net return on sales	1.08	1.02	0.94	1.14	1.05
Export returns	1.07	1.61	1.51	1.12	1.05
Personal expenditures	1.04	1.14	1.09	1.07	1.02
Income/expenditure index	1.00	1.04	1.04	1.00	1.01
Tax payment obligation	0.91	1.38	1.51	0.71	0.78
Dividends or shares paid	1.04	1.40	1.34	0.61	0.58
Rate of invested assets (from total assets)	1.08	1.11	1.03	1.00	0.93
Asset coverage (equity coverage) index	0.95	1.25	1.30	1.16	1.21
Supplier liability coverage	2.12	5.79	2.74	1.14	0.54
Indebtedness rate (long and short term)	1.24	1.56	1.26	0.82	0.66
Asset turnover rate	1.00	0.87	0.87	1.06	1.05
Per capita return	1.11	1.07	0.96	1.40	1.26
Leverage	1.41	1.37	0.98	2.00	1.42
Liquidity index	0.85	1.23	1.44	1.10	1.29

Source: own calculations

In about 11% of the changes of ownership during the period assessed among the companies selected lead to formation of **minority foreign ownership**. As regards the number of events, this means that on 11 occasions minority foreign ownership was formed and only on two occasions the enterprise acquired became the property of a second generation minority foreign investor.

The food industrial companies coming under minority foreign ownership have realised returns on sales increasing slightly over the sector's average rate with decreasing staff numbers and economic payroll managements. The intensive investments of the first generation proprietors implied the increase of the long term liabilities. The rate of indebtedness increased remarkably, while the asset coverage decreased. The tax and dividend payments declined. Despite this, the asset turnover rate and the per capita return slightly increased (Table 2).

Table 2

**Minority foreign ownership was formed or re-formed  
as a consequence of change of ownership**

Dependent variables	Sector-index	Majority foreign ownership maintained		Majority foreign ownership formed	
		Event-index	Effect-index	Event-index	Effect-index
Average staff number	0.97	0.92	0.95	0.94	0.96
Total assets	1.03	1.04	1.01	1.02	0.99
Investments	1.03	0.51	0.50	2.02	1.95
Long term liabilities	1.24	1.48	1.20	3.39	2.74
Added value	1.27	1.52	1.20	0.92	0.73
Net return on sales	1.08	1.10	1.02	1.05	0.97
Export returns	1.07	1.12	1.05	1.17	1.10
Personal expenditure	1.04	0.96	0.92	0.96	0.92
Income/expenditure index	1.00	1.03	1.03	1.00	1.00
Tax payment obligation	0.91	n.a.	n.a.	0.67	0.73
Dividends or shares paid	1.04	n.a.	n.a.	0.61	0.59
Rate of invested assets (from total assets)	1.08	0.96	0.89	0.93	0.87
Asset coverage (equity coverage) index	0.95	0.85	0.89	0.75	0.78
Supplier liability coverage	2.12	0.75	0.35	0.42	0.20
Indebtedness rate (long and short term)	1.24	1.44	1.16	4.40	3.54
Asset turnover rate	1.00	1.05	1.04	1.01	1.01
Per capita return	1.11	1.20	1.08	1.15	1.04
Leverage	1.41	1.33	0.95	1.62	1.15
Liquidity index	0.85	1.05	1.23	1.06	1.25

Source: own calculations

Between 1992 and 2006 changes of ownership occurred in 47 companies from among those involved in the assessment when a **domestic owned company became owned by another domestic proprietor**. In the first half of the assessment period, until 1998, this mainly meant privatisation of the state property by private investors. Thereafter, for some years, only a small number of changes of ownership occurred, then again the number of events increased. In the second half of the assessment period 21 changes of ownership occurred, only slightly less than during the privatisa-

tion period (26). A remarkable proportion of the companies acquired during privatisation changed proprietors only after a few years. There were in all events among the companies assessed, when domestic investors have bought the company from foreign proprietors. The majority of such cases occurred in the period after 2000, above all between 2002 and 2004.

The research has demonstrated that companies coming under new domestic ownership had performed not only weaker than the companies coming under foreign ownership but also than the entire industry (Table 3). From the social aspect the greatest advantage consists in the higher rate of employment, though the payroll cannot be considered as satisfactory. Deterioration of the quality of the professionals had an adverse effect on the competitiveness and innovative capability of the enterprises undergoing a similar event, manifesting itself in the drop of the per capita personal expenditure. In comparison with the companies passing to foreign ownership, these enterprises under performed considerably, suffering a remarkable loss of market. It cannot be disregarded that the biggest drop compared to the sector's average in tax payment occurred at these companies. After the change of ownership, they started intensive investments, financed from few long term and much more short term obligations. Though their liquidity position improved, the efficiency problems escalated: the added value dropped drastically, the income/expenditure rate decreased; the per capita returns fell. In the aggregate, it can be established that the competitiveness of the companies coming under domestic ownership worsened.

Table 3

**Domestic ownership was formed or re-formed as a consequence of change of ownership**

Dependent variables	Sector-index	Majority foreign ownership maintained		Majority foreign ownership formed	
		Event-index	Effect-index	Event-index	Effect-index
Average staff number	0.97	1.04	1.07	1.03	1.05
Total assets	1.03	1.03	1.00	1.11	1.08
Investments	1.03	1.71	1.66	5.52	5.35
Long term liabilities	1.24	1.07	0.87	2.75	2.23
Added value	1.27	1.00	0.79	1.01	0.80
Net return on sales	1.08	1.01	0.93	1.01	0.93
Export returns	1.07	1.26	1.18	0.86	0.80
Personal expenditure	1.04	1.06	1.02	1.01	0.97
Income/expenditure index	1.00	0.98	0.99	0.97	0.98
Tax payment obligation	0.91	0.67	0.74	0.45	0.49
Dividends or shares paid	1.04	0.93	0.89	n.a.	n.a.
Rate of invested assets (from total assets)	1.08	1.07	1.00	1.67	1.55
Asset coverage (equity coverage) index	0.95	1.02	1.07	2.38	2.49
Supplier liability coverage	2.12	1.60	0.76	1.54	0.73
Indebtedness rate (long and short term)	1.24	1.46	1.17	5.69	4.58
Asset turnover rate	1.00	1.00	1.00	1.00	1.00
Per capita return	1.11	1.01	0.91	0.93	0.84
Leverage	1.41	1.28	0.91	1.13	0.80
Liquidity index	0.85	1.16	1.36	0.95	1.11

Source: own calculations

In the life of the companies included in the sample, 98 changes of management occurred; of these, in 34 cases foreign participation can be demonstrated. In 16 cases the new management was dominated by foreigners, in 18 cases it remained under foreign ruling, meaning that a foreign management was replaced by another foreign management. It is typical that after 2001, if change of management occurred, the dominance was not changed; domestic remained domestic and foreign dominance remained foreign.

Table 4

**Management dominance after change of management**

Dependent variables	Sector-index	Foreign		Foreign		Remained domestic		Became domestic	
		Event-index	Effect-index	Event-index	Effect-index	Event-index	Effect-index	Event-index	Effect-index
Average staff number	0.97	1.00	1.03	0.94	0.96	1.11	1.14	1.04	1.07
Total assets	1.03	1.04	1.01	1.16	1.12	1.02	0.99	1.06	1.03
Investments	1.03	1.20	1.17	3.55	3.44	1.75	1.69	5.18	5.02
Long term liabilities	1.24	0.93	0.75	1.29	1.05	1.38	1.11	5.27	4.26
Added value	1.27	1.97	1.56	1.43	1.13	1.21	0.95	1.11	0.88
Net return on sales	1.08	1.35	1.25	1.10	1.01	1.06	0.98	1.17	1.08
Export returns	1.07	1.17	1.09	1.87	1.75	1.13	1.05	1.39	1.30
Personal expenditure	1.04	1.16	1.11	1.07	1.02	1.12	1.07	1.14	1.10
Income/expenditure index	1.00	0.99	0.99	0.99	1.00	1.00	1.00	1.10	1.10
Tax payment obligation	0.91	1.72	1.88	0.94	1.03	0.83	0.91	2.01	2.20
Dividends or shares paid	1.04	0.95	0.91	1.30	1.24	1.50	1.44	n.a.	n.a.
Rate of invested assets (from total assets)	1.08	0.99	0.92	n.a.	n.a.	1.05	0.97	0.78	0.72
Asset coverage (equity coverage) index	0.95	0.75	0.78	1.15	1.20	0.99	1.03	1.62	1.70
Supplier liability coverage	2.12	5.82	2.75	0.97	0.46	0.66	0.31	0.47	0.22
Indebtedness rate (long and short term)	1.24	0.99	0.79	0.87	0.70	1.22	0.98	5.51	4.44
Asset turnover rate	1.00	1.19	1.19	1.02	1.02	0.99	0.98	1.10	1.10
Per capita return	1.11	1.28	1.16	1.33	1.20	0.99	0.89	1.15	1.04
Leverage	1.41	1.49	1.06	1.88	1.34	1.20	0.85	1.44	1.03
Liquidity index	0.85	1.10	1.29	1.18	1.38	1.00	1.17	1.17	1.38

Source: own calculations

Changes in the managements with domestic dominance were more frequent: 64 similar events occurred during the period examined, concerning annually 8-10% of the companies assessed. In the selected companies, between 1992 and 2006, in 14 cases a domestic manager replaced a foreign executive, while in 50 cases the company remained under Hungarian management. Companies under Hungarian ownership and those under minority foreign ownership employed almost exclusively domestic management.

From among the enterprises involved in the study, there were 37 **mergers** and a single de-merger during the period assessed. As a single event cannot be analysed in itself, only the effects brought about by the mergers are examined. The majority – almost 57% – of the mergers occurred between 1995 and 2000, practically in the years directly following the privatisation of the food industry. There was a second wave of mergers between 2002 and 2005, when more than one third of the companies assessed considered that they could operate more successfully in the future if they merged.

However, upon analysing the data of Table 5, it is clear that the mergers did not have unequivocally positive effects. Though, following the mergers, the number of employees and the personal expenditure increased, the per capita incomes did not grow remarkably. Mergers were also characterised by the increase of development inclination, but, due to the increase of their obligations, the companies' financial position did not improve.

Table 5

**Merger**

Dependent variables	Sector-index	Merger	
		Event-index	Effect-index
Average staff number	0.97	1.16	1.19
Total assets	1.03	1.34	1.30
Investments	1.03	2.11	2.04
Long term liabilities	1.24	1.45	1.18
Added value	1.27	1.45	1.14
Net return on sales	1.08	1.33	1.22
Export returns	1.07	1.56	1.46
Personal expenditure	1.04	1.28	1.22
Income/expenditure index	1.00	0.99	1.00
Tax payment obligation	0.91	1.81	1.98
Dividends or shares paid	1.04	0.82	0.79
Rate of invested assets (from total assets)	1.08	0.99	0.92
Asset coverage (equity coverage) index	0.95	0.85	0.89
Supplier liability coverage	2.12	1.06	0.50
Indebtedness rate (long and short term)	1.24	1.10	0.89
Asset turnover rate	1.00	0.91	0.90
Per capita return	1.11	1.14	1.03
Leverage	1.41	1.42	1.01
Liquidity index	0.85	1.09	1.28

Source: own calculations

## Strategic models<sup>8</sup>

The strategy definition is not easy as it has many different interpretations. Also the trade literature cites different definitions in this connection:

- According to the classical "5P" definition of Henry Mintzberg, the strategy consists of Plan, Ploy, Pattern, Position and Perspective (Mintzberg, 1987);
- Michael Porter – one of the determinative characters of strategy formulation – represents the opinion that organisations have to acquire a position to which consumers attach value and which cannot be occupied by the competitors, being unable to copy it (Porter, 1996).

According to the theory of competitive strategies by Al Ries and Jack Trout, the strategy of a given company depends on several factors, but principally on its market position (Ries and Trout, 2007). Consequently the following strategic behaviours may be identified:

- market leader – the strategy in this case is market expansion or maintenance of the position,
- market challenger – characterised by a strategy attacking the competitor,
- market follower – imitates the product, maintains the positions,
- flanker – specialising in determinative market segments.

Porter's basic strategy starts out from the statement that it is impossible to create something that is cheap and unique at the same time (Porter, 1996). Consequently, the following strategies are differentiated:

- Cost leadership – it is applied by companies that have efficient size, are not bureaucratic and may avail of synergic effects. The company seeks cost reduction possibilities in order to increase its market share. Advantages: it preserves the buyer's bargaining position (it is beneficial for the buyer, because it may purchase the product at the lowest possible price), grants protection against new entrants because nobody can sell at lower prices. Consequences: increase of the market share; because all segments are to be satisfied, this strategy requires a high amount of capital reserve.
- Differentiation strategy – the aim consists in the differentiation of the product through emphasising its special features.
- Focus strategy – the company focuses on a single product or to a geographical area. It has a better relationship with buyers, but its target market is smaller. Advantages: it is a cost, economic and asset efficient strategy.

It can be therefore well sensed that the market drives the enterprises into competition and their strategy is simply a tool for attaining the objective(s) defined by them. The corporate strategies have undergone dynamic changes during recent years, resulting in beneficial effects on the competitiveness. While "competitive strategies" were prevailing between 1980 and 1990 in the companies' life, in the years after 1990, the enterprises tried to conquer more through strategies based on value chains and basic capabilities (Mészáros, 2002). In general, it may be established that cost awareness and cutting of the overhead expenses appeared as important criteria, and a considerable shift from production focus to market-orientation can also be observed.

---

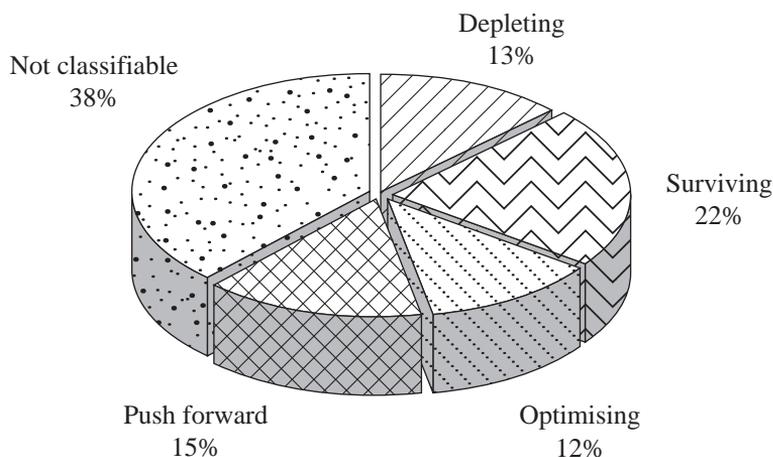
<sup>8</sup> During the recent years, there were several trials to reveal the strategies of the Hungarian food industrial companies, however their methodology was not adaptable to the database used by us. From among them, Lehota et al (2004) assessed the strategy models of the wine-growing companies, Módos et al. (2004) studied the meat and packing industry, while Lakner and Hajdúné (1999) the corporate strategies applied prior to the EU accession.

It is clear from the above that no analyses that would present strategies adaptable to the food industrial companies on the basis of the database used by us were ready available. Therefore we have created ourselves “strategic models” that may be applied to the “shock events” assessed and allow defining how the single companies under study reacted to the changes. These “strategic models” include<sup>9</sup>:

- depleting,
- surviving,
- optimising and
- dynamic strategies.

According to the basic concept, the companies classified as following **depleting** strategies are in a difficult financial position, have no funds for implementing the investments required for the supplementation of their equipment, while their revenues continuously decrease. In order to avoid bankruptcy, the funds required for the operation are obtained from loans or from selling assets. Decreasing staff number and gradual loss of assets characterise them.

Enterprises were ranked here in connection with altogether 21 “shock events”, from among the total number of 102 appraisable “shock events”, complying with the established criteria (Table 1). Within the period under study, the number of enterprises identified as following depleting strategies was divided equally; ten of them falling in the period prior and 11 of them in that after 1998.



**Figure 1: Division of strategic models**

Source: own calculations

In our computations, the depleting type companies decreased the number of employees by 27%, while the per capita personal expenditure increased by merely 3.5% (Table 6). This latter index increased at all strategy types, though at different rates. As we have used inflation-corrected data for our calculations, this may be due – beyond growth of the real wages – to the fact that the number

<sup>9</sup> Beyond these four types, the logic would also require a fifth model including companies specialising in certain fields, manufacturing highly positioned products of higher quality standards, and which would increase primarily the income and the efficiency in consequence of their reaction to the “shock event”. Companies of this category would lay great emphasis on product development and marketing. However, the data available to us did not make it possible to unequivocally circumscribe these characteristics, therefore, finally we decided to abandon studying of this category.

of the less skilled staff decreased, partially in consequence of mechanization and in part due to a better organisation of the work processes. Also the growth of charges and taxes imposed on wages increased the personal expenditure. The rate of exports within sales increased also at the depleting-type companies, but this trend is more or less true for the entire scope of the enterprises assessed. In the case of these companies, the increase of the export ratio remained below the average.

Table 6

**Number of the single strategic types and their event-indices**

Strategic model	Number of employees	Per capita personal exp.	Export/ domestic sales	Return from sales/ output	Turnover rate	Per capita revenues	Indebtedness	Investments	Return from sales	Capital assets	Number (from total of 207)
Depleting	0.73	1.04	1.43	0.96	0.98	0.97	1.78	0.30	0.69	0.76	21
Surviving	0.93	1.03	1.10	1.02	1.00	1.04	2.57	0.68	0.97	0.97	36
Optimising	0.88	1.12	1.75	1.05	1.14	1.35	2.27	3.68	1.17	1.04	20
Dynamic	1.44	1.11	4.34	0.97	1.15	1.15	1.75	6.98	1.58	1.48	25
Not classifiable	0.98	1.11	21.27	0.98	1.03	1.27	4.80	2.56	1.16	1.14	63

Source: own calculations

The rate of return from sales and the output decreased, showing that these companies manufactured low quality, unbranded products or could realise only a narrow price margin, due to the sharp price competition. Also the turnover rate decreased, indicating efficiency problems. The per capita revenues dropped by 3.5% on average, meaning that returns from sales decreased to an extent even exceeding that of the strongly decreasing number of employed. The rate of indebtedness decreased more moderately than in the case of the other companies, probably due to the fact that these companies were less creditable. Their investments dropped by 70% following the „shock event”, one quarter of their capital assets were lost due to obsolescence or sale.

Companies belonging to the **surviving type** operate with low profitability, being able to pay the salaries, but having no sufficient funds for investment and development. Their product innovation is at the minimum level. The surviving type companies compete first of all on price, they hardly acquire any new markets and their return from sales is stagnating or decreasing. During our study, the surviving type companies proved to be prevalent; in total, 36 of them were identified. This category was markedly more frequent after 1998, when 22 enterprises could be ranked here, while earlier this type was observed only in 14 cases.

Enterprises ranked here decreased the number of their employees by 7% in the two years following the “shock event”, while the per capita wage costs increased only slightly, by 3%. The moderately dropping revenues (by 3%) – from sales directed invariably to the already existing markets – were sufficient to increase the per capita return minimally, by 4%. Neither the return/output ratio, nor the rate of turnover changed, meaning that the companies lived through the period of assessment without any meritorious progress. Their investments fell to two thirds on average, while their capital assets decreased only slightly, by 3%. The indebtedness increased considerably, but the funds thus raised were spent on the maintenance of their solvency, instead of investments or equipment purchases.

After a “shock event”, the **optimising type** companies reorganise their operation, implementing remarkable cut-backs in the staff, termination of some activities and closing down of factories. Without serious investments, in this manner a more optimal operation may be attained, with improving profitability and efficiency. The revenues increase moderately and sales are mainly targeted to new markets (export). As a result, the financial standing of the enterprise improves considerably. The new proprietor employs not so much new capital as up-to-date management knowledge and know how in managing the company. The after “shock event” behaviour of 20 enterprises belonged to the optimising category. This attitude was more applied by the companies in the first half of the period concerned; 13 similar enterprises were identified prior to 1998 and only seven thereafter. Companies following the optimising model decreased their staff number by 12% on average, retaining however the employees with higher qualifications and consequently with higher salaries, because the per capita personal expenditures increased by 12%.

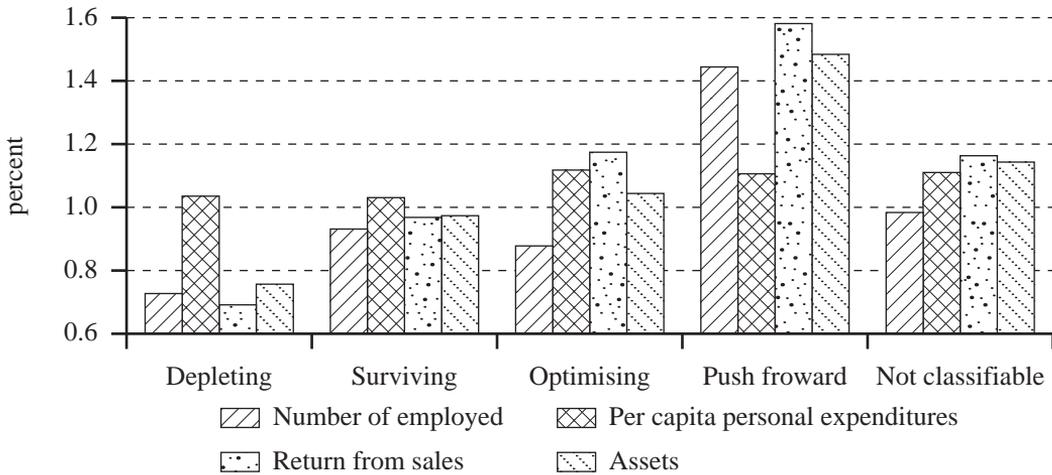
Their investments grew on average by 3.7 fold and that brought the expected results: the revenues increased by 17% and the capital assets expanded by 4% (we can see that these companies did not focus on equipment purchases!). Entering new markets was typical, as the rate of exports within returns from sales increased by 75%. All this had led to a remarkable 35% increase of the per capita revenues. From among all strategic models, the revenue/output ratio increased most in this category, by nearly 5%, indicating a quality progress and a higher price margin. Also the 14% growth of the turnover rate can be accounted for as success. On the financing side, doubling of the indebtedness index is observed, but – as shown above – the resources were used beneficially.

Accordingly, the optimising type companies lay the emphasis on reorganisation and on rendering more efficient their operation, while intensive investment activities constitute only a secondary objective. (The increase to nearly quadruple of the investments should not deceive as investments are already retained by the management during the period preceding the “shock events”, and any further growth has to be evaluated in comparison thereto.) By reason of the above-said, the optimising behaviour may be successful only on the short term, it does not grant long term development. It could be rather considered as crisis management or as an endeavour to increase quickly the company’s value, with the probable aim of a sale at a later time.

At the **dynamic type** enterprises – perhaps following a short reorganisation – considerable investment activities are started; the staff number, the capital assets are increased and, in consequence thereof, also the returns from (both export and domestic) sales grow. Due to the intensive utilisation of resources, the credit stock – the indebtedness – is increasing. The efficiency indices improve only slowly, compared to the production volume. In all, 25 companies adopting dynamic behaviour have been identified; the majority of them (13) in the first half of the period under study, while only nine in the second half.

In the case of the enterprises adopting dynamic behaviour, a remarkable expansion of employment is detected; their staff number increased by 44% on average during the two years following the “shock event”. The maintained and newly employed personnel was also paid well; the per capita personal expenditure increased by 11%, presumably making also a quality improvement. In consequence of the investments increasing to sevenfold on average, the capital assets grew one and a half times and the revenues increased by 58%. This implies that development was founded not principally on more skilful management but on quantitative increase of the production. The rate of the export within the total revenues jumped to more than quadruple; that is, these companies outgrew the placement possibilities of the country, seeking foreign market opportunities for their goods produced in large volumes at competitive prices. Instead of seeking outlets for the excess quantities generated in peak production periods, they strived to find stable foreign markets.

The revenue/output rate decreased slightly, implying that low cost mass production was developed; moving towards quality products of higher prices was less typical. Their efficiency also improved remarkably; both the turnover rate and the per capita revenues increased by 15%. Their indebtedness grew, but to a lesser extent than in the companies adopting other strategic models; in the majority of the cases, financing was granted by the new proprietor's capital.



**Figure 2: Mean values of some typical event-indices of the strategic models assessed**

Source: own calculations

## Conclusions

The food industrial enterprises involved in the study presented several negative traits in the period between 1992 and 2006. From among the four types of strategic behaviour, the depleting and – the most frequently occurring – surviving strategies are unequivocally disadvantageous. In addition, apart from the advantages, there are several negative trends also in the optimising strategy. The short term thinking and the cut-backs, giving preference to reorganisation instead of development are not favourable not only for the entire society, for the other sectors linked with the processing industry, but – in the long run – also for the company concerned. The dynamic category alone may be considered as unequivocally positive; these companies were driving forces for development, providing the foundations of growth. Beyond them, also specialised companies focusing on niche markets have opportunities to be exploited.

Dividing the period between 1992 and 2006 into two stages, it can be established that while the frequency of occurrence of the unequivocally negative types – depleting and surviving – increased remarkably in the second half of the period assessed, simultaneously the rate of the companies applying optimising and dynamic strategies fell nearly to half. This is a consequence of several factors; of them, the disadvantageous market changes and the adverse effects of the socio-political environment to capital attraction can be accentuated. The changes revealed also indicate that the general position of the food industry turned to a direction presenting tragically deteriorating trends as from the years around 2000. The companies belonging to the Individual strategic models were divided uniformly among the different speciality sectors; no relevant relationship was revealed among strategy types and special sectors.

The research allowed also drawing other conclusions regarding the future of the sector. It was for example established that, to the same extent as the participation of the foreign capital in the Hungarian food industry's development was determinative, the sector was exposed to the decisions of the multinational companies. The domestic experiences confirm that foreign capital may play a positive role in the food economy under normal and balanced economic and market conditions. However, as soon as the economy "tilts" and crisis symptoms emerge, the mother companies endeavour to survive the difficult periods to the detriment of their subsidiaries in foreign countries, without caring about the negative effects exercised by the capital withdrawal and profit repatriation to the economy and society of the countries previously admitting such subsidiaries. Therefore, the issue of the impacts of foreign capital in the food industry is at the same time an issue of the national security.

Our research has confirmed that foreign proprietors enjoyed considerable tax allowances during the period assessed, implying competitive advantages for them. At the same time, however, withdrawal of the profits in the form of dividends in companies with majority foreign ownership, though exceeding the rate of dividends paid by the domestic owned companies, could not be considered as excessive, at least until the closing year of the research, when the foreign capital present in the food industry was already "escaping" from the country. Dividends withdrawn by foreigners amounted to 8.1% of their invested capital in 1992, 8.3% in 1997 and "only" 14.7% in 2003, acceptable as fair capital return in consideration of the domestic inflation rates. But in 2006, funds withdrawn by way of dividends amounted already to HUF 38 billion, that is to 27.1% of the total foreign capital invested. The rate of dividends at the domestic owned companies fluctuated between 2% and 10%. It is however necessary to add that data were only available on the amount of dividends from among the possible forms of capital withdrawal, though there are several other methods of repatriation that cannot be easily detected from the tax returns.

We have established that, during the one and a half decades of our assessment, great collapses, bankruptcies of processing enterprises causing billions of forints of loss to producers supplying them, occurred in the companies or groups of companies purchased or privatised by Hungarian capitalist circles. Probably, the reasons thereof consisted in the lack of professional management and strategic thinking at the domestic companies, and in their endeavours to exploit the possibilities of quick profiteering. Data revealed during our research have also demonstrated that there were almost no large collapses in the case of green field investments; the later negative developments and their effects were much less frequent and moderate than in the case of enterprises established through the purchase of already existing capacities. The reasons thereof probably consisted in the fact that there was no negative determination in the case of green field investments, implemented on the basis of well-considered business plans.

The partial results of our research confirm that the reserves available in the food industry's structure are already used up in the actual social and economic environment. Under the existing conditions, the sector is not able to stop its backsliding. Though in a decreasing rate, the withdrawal of foreign capital from the country will continue. The decrease of the registered capital, depletion of the assets and deterioration of the competitiveness seem to be unavoidable.

## References

1. **Alvincz, J., Tanka, E. and Udovecz, G.** (1994): A külföldi tőke megjelenése a magyar élelmiszergazdaságban (Appearance of foreign capital in the Hungarian food economy). Budapest: Agrárgazdasági Kutató Intézet
2. **Jansik, Cs.** (2001): Külföldi működő tőkebefektetések a magyar élelmiszeriparban (Foreign operating capital investments in the Hungarian food industry). Budapest: AGROINFORM
3. **Kapronczai, I.** (ed.) (2009): Tulajdonosi és szerkezeti változások a hazai élelmiszeriparban (Ownership and organisational changes in the domestic food industry). Agrárgazdasági Tanulmányok No. 1. Agrárgazdasági Kutató Intézet
4. **Kerek, Z.** (2002): Gondolatok az élelmiszeriparról (Reflections on the food industry). Pénzügyi Szemle (47)2: 188-294.
5. **Lakner, Z. and Hajdu, I-né** (1999): After the transition - before the EU joining: Competitive strategies of Hungarian food industrial enterprises, Acta Alimentaria (32)2: 125-139.
6. **Lehota, J., Komáromi, N. and Szabó, Z.** (2004): Role and Relations of Marketing Strategic Types and Groups in the Hungarian Wine Sector, Studies in Agricultural Economics No. 101.
7. **Mészáros, T.** (2002): Stratégiai menedzsment (Strategic management), kézirat (manuscript). Budapest: Budapesti Műszaki és Gazdaságtudományi Egyetem, 15 p.
8. **Mintzberg, H.** (1987): The Strategy Concept. California Management Review [http://www.csis.ul.ie/Modules/CS4925/lectures/Mintzberg\\_5%20Ps.pdf](http://www.csis.ul.ie/Modules/CS4925/lectures/Mintzberg_5%20Ps.pdf)
9. **Módos, Gy., Tóth, J., Zádori, L., Tüske, R., Molnár, A., Fogarasi, J., and Dúl, U.** (2004): A versenyképesség összetevői és mérési módszerei a hús-termékpályán (The components of competitiveness and their measurement methods in the meat production chain). Budapest: AGROINFORM
10. **Porter, M.** (1996): What is strategy? Harvard Business Review, 1996 November-December
11. **Ries, A. and Trout, J.** (2007): A marketing huszonkét vastörvénye (Twenty-two fundamental rules of marketing). Budapest: Bagolyvár Könyvkiadó