### University doctoral (PhD) dissertation abstract

# A STUDY ON BUSINESSES OPERATING IN THE FOOD INDUSTRY, BASED ON THE ACCOUNTING RULES FOR CONCERNS

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#### 1. Research objectives

The concept of paradigm, the need for paradigm change is a subject more and more discussed by researchers in agrarian industry. The agrarian political paradigms are separated from each other by each researcher along different criteria. From the various views, in association with the subject of my thesis, I have highlighted the paradigms identified by Tim Josling (JOSLING, 2002) and László Csete (CSETE, 2008) because both researchers deem important the globalisation process taking place in world economy.

Tim Josling, Professor at Standford University in California, differentiated the paradigms on the basis how the role of agriculture is considered in national economy. From the four paradigms he set up, globalised paradigm is related to the globalisation process where food industry transforming under the impact of globalisation is presented. "The globalised paradigm visualises agriculture as part of the (potential) global food supply vertical chains where farmers perform management services in association with the land and livestock, in the integrated process which begins with production asset supply and ends with food trading. This is the newest paradigm, which is still developing, where the process will be "controlled" by the consumer, and processors and (production asset and food) trading will have an increasing influence on economy policy." (MÉSZÁROS, 2006:48) In the view of László Csete, "the agrarian industry is facing a major challenge which will set up and initiate new directions in research, education and entrepreneurial behaviour." (CSETE, 2008:354)

Globalisation is accompanied by the tendency where legally independent agrarian, food industry and food trading businesses – to various extents and in various ways – get into stakeholder and shareholder relations with each other. Due to the stakeholder relations, market conditions between the businesses (may) become limited, therefore, based on the individual annual reports (financial statements), the assets, financial and income positions of the businesses may not be presented. The gap in information created by the limitation on market conditions may be terminated if the businesses are interpreted as business groups and the methods of consolidation accounting are applied. Consolidation accounting offers the opportunity to judge the market positions, power, assets, financial and income positions of concerns and multinational and transnational businesses,

created on the basis of stakeholder and shareholder relations, if the internal connections of business groups are screened out. In case the governments do not limit the concerns, multinational and transnational businesses, then by spreading the norms of wasteful expense behaviour, they implement a global economical policy in the whole world which will result in social and ecological self-destruction. One should, however, remember that not everything is down to globalisation. (SCHMIDT, 1999)

In the food industry, another group of businesses is featured by the fact that the activities which are separated by the concerns into legally independent businesses are performed within one business. In the case of those companies, if we wish to examine the assets and financial position and the profit earning ability of the individual activities, then those businesses may be considered as a kind of special "concern" where the organisational units performing the individual activities can be regarded as legally independent businesses within a concern. In that way it is worthwhile to examine the applicability of concern accounting rules and methods in that economic area as well.

As the general and summary objective of the study, a presentation of the concern accounting methodology, an analysis of the impact of consolidation and the applicability of it in special situations have been set up. In my study I aimed at developing model company group using the stipulations of the Accounting Act where the relations between the members of company groups operating in food industry become transparent, accumulations can be identified and screened out, and through that, appropriate information may be provided for the management of those businesses for their decisions.

Towards my such major objectives, I have set up the following targets in my study:

- In order to study the role which examined concerns take in national economy, I
  deem it necessary to present the economic environment. As a starting point of my
  study, I briefly presented the changes in the position of Hungarian food industry,
  presented the organisational forms of businesses, and gave a review of their
  economic importance.
- Following the review of the position of Hungarian food industry and food businesses, I placed focus on presenting and interpreting the concept of business groups as identified in literature.

- Considering the international accounting trends, I deemed it important to highlight
  the relevant directives of the European Union and the rules on consolidation of
  International Accounting Standards (IAS, IFRS).
- 4. Following a review on the concern accounting methodology, using literature sources and my own research results and practical experience, I presented the theoretical and methodological steps of making individual statements capable of consolidation, including the methods and work process of compiling the consolidated annual reports. Regarding the involvement methods applied in consolidation, I presented in detail only the method of comprehensive involvement. The reason for that was that this involvement method is applied most frequently by food industry concerns, and this method can be considered as the most complicated and most comprehensive one. In the course of studying the businesses which have stakeholder relations with each other, I used my own research results and consolidation literature, as well.
- 5. In the course of my research, I presented the screening options offered by data obtained from the accounting information system, and showed that accumulations of what degree in the assets and profits of businesses are caused by stakeholder relations. Using a model, the cumulative data consolidated on the basis of assets, financial and income figures indicated in the individual reports of businesses that are seemingly legally independent but do have stakeholder relations with each other, were compared to consolidated data, and the characteristic areas and reasons of internal accumulations were explored. In the course of the study, I used the method of comprehensive consolidation.
- 6. As a special area of application, I examined that what modifications should be made in the methods of certain subtasks of comprehensive consolidation to agricultural businesses which perform activities that are built vertically on each other.

In the subject range of consolidation, a number of other research directions and subareas may also be identified as independent research subjects besides the areas I have studied. As such research directions, the subject group of transfer pricing involving concerns, and the consolidation of special company situations may be mentioned. Due to reasons indicated above, those issues have not been covered in detail in my study.

### 2. Background and applied methods

In order to reach the objectives, I used my own collected data, Hungarian and international literature, effective Hungarian rules of law, European Union directives, International Accounting Standards (IAS), International Financial Reporting Standards (IFRS), my own research and practical experiences, and information obtained from Hungarian databases (KSH, FVM, IRM).

As the subject group examined in the study is very diverse, the secondary research which documented and systemised literature has not been presented in a separate section but rather in relation to each section and the discussion on sub-areas.

In the frame of processing the literature on concern accounting methodology, I deemed it important to have practical approach to the subject range. As stated by Szilveszter Vizi E. in an interview: "The researchers should step out of splendid isolation in their ivory towers and should serve the players of economy." (VIZI, 2008)<sup>1</sup> In the course of presenting the methodology of concern accounting, the structure of processing literature was determined by the work process of compiling the consolidated annual report. I also deemed it important that in addition to presenting the literature, each subject group should reflect my own experience and position.

Following the processing and systemised presentation of literature, the next task was to develop a database necessary for the study outlined in the objectives.

Data presented in the sections of the study were available from various sources including:

- Central Statistical Office,
- Ministry for Justice and Order, Company Information and Electronic Company Procedure Service,
- Complex CD collection of the rules of law, and Céghírek Plusz,
- www.opten.hu,
- questionnaire survey,
- personal contacts,
- individual annual reports of the businesses,
- consolidated annual reports of the company groups.

<sup>&</sup>lt;sup>1</sup> Interview broadcast by Hungarian Televison channel M1 on 1 November 2008.

In the course of data collection I placed focus on having access to as many consolidated annual reports as possible.

In the course of the questionnaire survey, my aim was to have as wide a range of information as possible on the parent companies and the members in the company groups to support the study objectives.

In the course of my research my finding has been that due to the fact that a major part of food economy and within that, food industry, had been moved into the ownership of concerns, multinational and transnational companies, and therefore this economy area has become difficult to research in the recent decades.

In the first stage of my research work, using a questionnaire survey I was searching for the answer what consolidation methods the concerns operating in food economy use, and what typical internal accumulations appear in the course of pursuing the economic activity. In the course of examining the parent companies and the members of the company groups, I considered it important to evaluate the level of regulation in data provision, the frequency of data provision and the usefulness of it.

In the course of evaluating the answers given to the questionnaire survey, I applied descriptive statistical methods and drew statistical consequences. Based on the subject of my study and the nature of the survey, I used quality criteria. Correctness of consequences drawn based on the replies has been checked with test independence, the  $\chi^2$ -test, in addition to the usual significance levels. The closeness of association was measured by the Cramer coefficient of association.

Following the summary and evaluation of the consolidation features of company groups pursuing activities in Hungarian food economy, my research focused on the given company group.

The process of setting up a model company group may be summarised as follows:

- Target identification: by studying the model company group I was searching for an answer on what changes are caused in the assets, financial and income position of the company group, compared to the individual data of the businesses and the cumulative consolidated assets, financial and income positions of the company group, by performing the subtasks of comprehensive consolidation.
- Establishing the components and features of the model: in modelling, I used the general experience from the questionnaire survey.

- Outlining and putting together the model: in putting together the consolidated balance sheet and profit and loss statement of the model business I worded such relations, applied such methods and assumed such typical economic events which I considered most typical and most widespread applied based on the review of the questionnaire survey and the consolidated annual reports of the company groups operating in food economy. The model which was developed in such a manner had all the features that the concerns operating in food economy have.
- Performing the consolidation of the model company group: using the figures of the model company group and the assumed economic events I performed the consolidation of the company group.
- Checking and ensuring the validity of the model, and documenting the model: based on the figures of the individual businesses and following certain subtasks of the comprehensive consolidation of the model company group, I performed an analysis of the assets, financial and income positions. Once the calculations had been finished, the results were evaluated and the consequences were worded.

In the last stage of my research I examined whether the methods worded in certain subtasks of comprehensive consolidation can be applied to business organisations other than company groups. Among the business organisations, due to their peculiar features, I selected for the subject of my examination the agricultural businesses performing activities that are built on each other vertically.

At the end of my study, based on the experiences obtained during my research work, I provided a short summary of my consequences and presented the results which I regard new or a novelty in this research area.

The study was written, the data were processed, and the spreadsheets and figures were prepared with Microsoft Word 2007, Microsoft Excel 2007 and SPSS Statistics 17.0.

### 3. Main points established by the study

# 3.1. Experiences of regulating the consolidation and its practical application

The creation and growth of businesses and the development of accounting have a close relation. It would be difficult to decide whether the development of accounting triggered the growth of businesses, or the development of economic relations was the driver behind creating the accounting rules. (EPSTEIN-MIRZA, 2002) However, it can be clearly stated that the relation and mutual interaction of accounting and businesses may not be ignored. The company groups that were established as a phenomenon accompanying the globalisation process were developed in every area of the economy including food economy. Practical experiences show that those concerns, controlling the obtained market sector, are able to influence almost all countries, governments and individuals. In order to reduce such influence, the countries and the governments try to establish control over the economic activities of those businesses, and consistent accounting may be an efficient tool in that effort.

The information required for the compilation of consolidated annual reports which provide a consistent interpretation of the assets, financial and income position of concerns, are basically provided by the accounting information system. In order for accounting to be able to meet the requirements on it, it is necessary that the main rules and the requirements of accounting are specified in various rules of law, other legislation and directives and standards. (NOVÁK, 2001)

Based on my research experience, a consistent judgement on the assets, financial and income position of company groups have obstacles. Those obstacles are as follows:

- The businesses operating in various countries specify their asset, financial and income positions based on the national accounting rules which are different for each country.
- In addition, the stakeholder and shareholder relations created between the members of the concerns established clear subordination and superior relations between the companies, the market conditions within the company group became limited, and the individual annual reports and financial statements do not reflect the assets, financial and income positions of the individual business.

In order to overcome all those obstacles, it became necessary to develop a common set of accounting rules. Therefore, the aim worldwide is to make accounting rules consistent. Presently there are various levels of accounting regulation:

- National regulation in the individual countries, for example: US GAAP,
- regulation that is binding in more countries, for example, EU directives, and
- set of rules implementing international accounting regulation, for example, IAS.

Hungarian accounting regulation partly considered and applied the provisions of European Union accounting directives in its act XVIII. of 1991 on accounting. However, adaptation to changing demand made it necessary to recodify the Accounting Act which then clearly stated compliance with the accounting directives of the European Union, and also that any procedure that cannot be harmonised with those directives, may not be applied during accounting settlement.

The Hungarian subsidiaries of multinational businesses operating in food economy had two tasks in association with consolidation based on the requirements of the Accounting Act before Hungary's accession to the European Union:

- as the parent company of Hungarian linked businesses, they were obliged to prepare a consolidated annual report in accordance with the provisions of Hungarian Accounting Act, and
- as the subsidiary of a foreign parent company, they were obliged to provide data to the multinational company to support the preparation of the consolidated annual report of the parent company.

Therefore, Hungarian businesses participated in the consolidation process based on two accounting settlement rules which unavoidably caused extra cost and was in conflict with the accounting principle of cost/profit comparison. Some of those tasks disappeared during the accession of Hungary to the European Union because following the accession, the subsidiary of a superior parent company having a registered office in the European Union which subsidiary is considered as an exempted parent company, may be exempted from the obligation to prepare a consolidated annual report.

Due to legal harmonisation accompanying the EU accession, the legislative requirements in Hungary on consolidation accounting have gone through a period of regular changes. One major step in that was that according to the stipulation of the Accounting Act entering into force on 1 January 2004, a business falling under the effect of Article 4 of the Decree 1606/2002/EC, may also meet its liability to prepare a consolidated annual report in such a manner that it puts together its consolidated annual report in accordance with the International Accounting Standards published in the Bulletin of the European Union in the form of a Decree. Those businesses fall under the Decree 1606/2002/EC which are listed at the stock exchange and considered a parent company. This largely reduces the labour demand of the consolidation process because a parent company which belongs to a multinational company group and is exempted, has to prepare a consolidated annual report only in accordance with the international accounting rules, and has to provide data to support the preparation of the consolidated annual report of the parent company.

In spite of the favourable developments, there are still outstanding tasks because a difference is seen between the requirements of International Accounting Standards and the EU directives that are obligatory for Hungary. Those differences may be examined only if the process of performing consolidation is known in detail together with its regulation by the Accounting Act. Consequently, I considered it important to present the problems which rise in practice in the course of preparing a consolidated annual report, and also the options for solution.

## 3.2. Features of the consolidation of businesses operating in food economy

Preparation of a consolidated annual report is deemed by the majority of the businesses and parent companies as a necessary and redundant bad thing. In order to meet legislative requirements, they ensure the preparation of the consolidated annual report, but the information in those consolidated reports is not utilised in managerial decisions. However, under the economic circumstances that have developed owing to the financial and economic crisis, in order to maintain the competitive edge, managers of parent

companies, business partners of concerns, creditors and the players of the economy should take every opportunity which provides them with extra information about the business activities, assets, financial and income positions of the concern. The consolidated annual report provides such extra information to management of business groups, business partners, creditors and players of the economy by which – if used in a competent manner during the decision-making process – it is easier to judge the assets, financial and income positions of the business groups. It can help to present the cumulative assets and income which include a number of cumulations and which are based on not real performance but legal, financial and accounting technical settlement, which play a major role in the development of the financial and economic crisis.

In the course of my research, I therefore deemed it highly important to learn the practice of consolidation in Hungary, to which the information and accounting data I collected through a questionnaire survey. Prior to sending out the questionnaires, in order to set up the target group of businesses, I deemed it necessary to explore and research into the ownership structure and connection network of businesses operating in the food economy. Based on the outcome of the research, I revealed a number of features in association with the owners and their investment habits. Based on that I established that the investments were typically determined by not economic strategic targets but rather to avoid the consolidated reporting obligation and income taxation, and to "hide" the person of the real owner and avoid competitive law and share risks.

By evaluating the questionnaire I received a comprehensive picture on the regulation of consolidation, the system and usability of data supply. In the frame of the questionnaire survey I examined parent companies and concern members. The member companies involved in the survey included not only the businesses which had a parent company with a registered office in Hungary but also the Hungarian businesses of companies registered abroad. Therefore, certain statements have modified as compared to the features of the parent companies because they were associated with not the same group of businesses. The examination concerning the parent companies covered the whole process of consolidation. Given the features of consolidation, the survey concerning the member companies covered the regulation of data provision.

The survey established that the majority of parent companies operate as a company limited by shares, while the majority of the member companies operate as a limited liability company. The parent companies exercise the dominating influence through voting rights. 61% of parent companies pursue activities in more branches of food economy; however, 94% of member companies pursues an activity only in one branch.

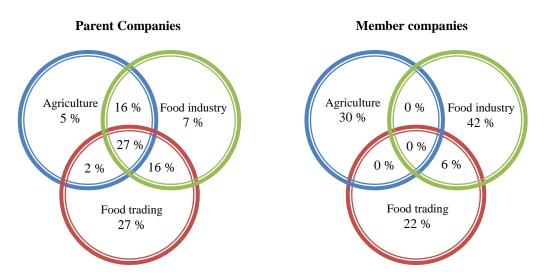


Figure 1: Percentage distribution of activities pursued by parent companies and member companies operating in the food economy

(Source: own survey)

Regarding the degree of regulation of data provision, the summary statement can be made that for concern members, the degree of regulation of consolidation and data provision including its frequency is less strict than the corresponding requirements applied to parent companies. The reason for that is – as mentioned above – that those businesses also include the businesses in Hungary of foreign parent companies for which the accounting requirements of the foreign parent company prevail both in accounting policy and the area of data provision.

In the course of implementing the consolidation, parent companies most often applied the method of comprehensive consolidation, from which 16% of the subsidiaries and 40% of businesses under joint management received an exemption. 65% of joint ventures were exempted from being involved through the method of share evaluation. The exempted businesses were normally given the exemption due to the unessential

nature of the issue. The parent companies involved in the survey did not give an exemption from certain subtasks of full consolidation to the fully involved subsidiaries and businesses under joint management.

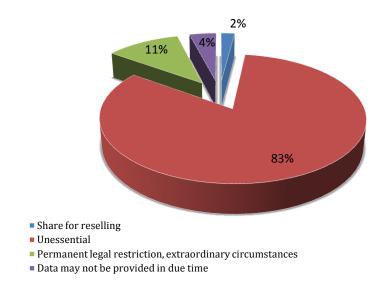


Fig. 2: Exemptions applied to the consolidation of subsidiaries and businesses with joint management (data in percentage) (Source: own survey)

Another range of questions concerning the parent companies was aimed at examining the internal accumulations. Based on the answers given to the questions of the questionnaire, it can be stated that with the parent companies, in the course of implementing the capital consolidation, less than 20% of the accumulated, consolidated (prior to screening) equity elements are data of the parent company. Therefore, with relatively small capital the owners are able to influence and control assets in the order of billions. Following the consolidation, it could be observed with the concerns that the sign of balance sheet total figure changed. All that indicate how significant internal cumulations are included in the equity line of the cumulated, consolidated balance sheet of company groups because following the implementation of capital consolidation, in the conventional equity lines (except for the balance sheet total), only the equity figures of the individual annual report of the parent company may remain (except for the balance sheet profit/loss).

Examining the impact of the implementation of debt consolidation it can be stated that no advance payment given for intangible assets was included in the consolidated and cumulative balance sheet of business groups. 56% of the company groups did not have

an advance payment made for investment project, and with 44%, the value of debt line remained unchanged. No screening was applied to the value of invested financial assets in the course of implementing debt consolidation. No value was indicated in the line "Advance payment made for stocks". With the company groups the value of claims reduced by less than 20% as the effect of screening. 33% of the company groups had securities for the purpose of trading, on which no filtering was performed. This also stems from the fact that based on the application of obligatory accounting policy and the information provision obligation of the parent company, the member companies are familiar with the categorisation criteria of ownership investments, therefore there is no need for preparatory rearrangement and filtering from these balance sheet lines. Between members of the company group, there was no accumulation in the accruals/deferrals as the businesses settle and sort out the impacts of relations between each other still in the subject year. In the value of subordinated liabilities, change took place only due to settlement of the passive capital consolidation difference. The longterm liabilities were not concerned by the filtering implemented in the course of the tax consolidation. The amount of short-term liabilities typically reduced by nearly 20% following the screening.

Following the income/expenditure consolidation, no change occurred in the balance sheet profit/loss figure of the company groups, only the order of magnitude of sales revenues, income and cost items, value of expenditures reduced which developed the value of balance sheet profit/loss. The operating (business activity) profit showed no change, although the sales revenues, income and cost items, expenditures, which developed it, reduced between 0-20%. The reason that there was no change in operating (business) profit is that in the case of company groups operating in the food economy, the economic events which caused accumulation concern the sales revenue, income and cost expenditure of the same profit category. The profit of financial transactions, however, showed a substantial reduction, and the reason for that is the dividends received, as settled between the members of the company group. The end amount of extraordinary profit/loss was unchanged, and only the income and expenditure items, which developed it, reduced, and the degree of change was between 40-60%. The change in profits before tax and profits after tax had two reasons. One reason was the reduction in the profits from financial transactions, and the other reason was the settlement of company tax calculated due to consolidation.

Due to the filtering of interim results, the cumulative consolidated operating (business) profits of company groups showed a substantial reduction, and that reduction reached 40-60%. The reason for that was that the economic events which cause interim results – due to the features of economic events taking place between the company groups operating in food economy – basically have an impact on operating (business) profit. The profit of financial transactions and the extraordinary profit figures do not show any change. The change in profit before taxation was caused by the change in operating (business) profits.

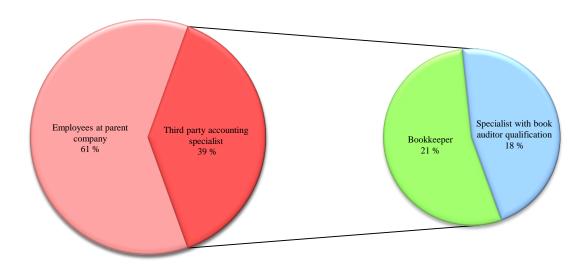


Fig. 3: Persons preparing the consolidated annual reports of parent companies covered by the survey (data in %) (Source: own survey)

The replies given by parent companies covered by the survey also show that the majority of parent companies consider it important not only to have a thorough and detailed regulation of consolidation but also that such specialists are applied who have a robust understanding and familiarity with consolidation. However, the fact that more than one-third of consolidated annual reports are prepared by third-party accounting specialists very likely has an impact on the utilisation of figures provided by consolidated annual reports. The managers and owners of parent companies should in the present financial and economic crisis deem it important not only to have a consolidated annual report prepared but also to use in their business decision prepations and making the possible widest range of information of those reports.

## 3.3. The impact of consolidation on the assets, financial and income positions of the company group

In the second stage of my research project I was searching for an answer on what impact the consolidation and its individual steps have on the indicated assets, financial and income positions of the parent company and the concern members. In order to perform the examination, I created a model company group also taking into consideration experience from the questionnaire survey. Accordingly, the model bears the features that company groups operating in Hungary in the food economy have. In compiling the consolidated balance sheet and profit and loss statement of the model company group, I set up such relations and applied such methods and assumed such typical economic events which featured the most the company groups operating in food economy, and which I considered as the most widely applied methods. The model company group set up in such a manner and the prepared consolidated balance sheet and profit and loss statement are naturally just one of the great number of potential versions but they definitely bear the common features of the company groups I studied.

I performed the economic analysis of the indicated assets, financial and income position of the model company group following certain steps of the comprehensive consolidation, and during that process I made the following statements:

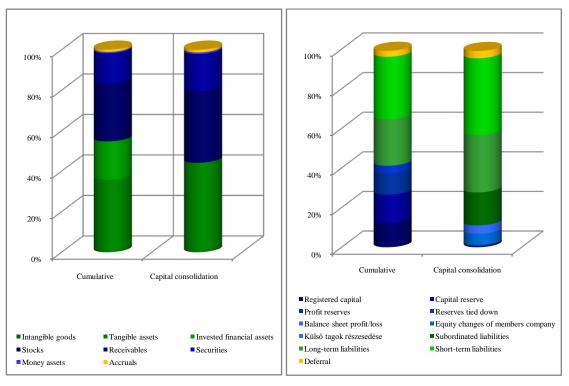


Fig. 4: Percentage distribution of assets and liabilities of the model company group

Based on the analysis of changes taking place as the result of the capital consolidation it could be stated that compared to the cumulative consolidated balance sheet and profit and loss statement figures of the company group, substantial changes took place. The cumulations appearing in capital reach 80 % of the cumulative consolidated equity. The indicated assets, financial and income positions of concern members substantially differ from the indicated assets, financial and income positions of the company group. The analysis of individual figures may not provide reliable information to the management of the company group because the implementation of consolidation and capital consolidation have fundamental influence on the judgement of the assets, financial and income positions. Based on the individual figures, the picture on the business activity of individual members may be favourable, however, due to the impact exercised by group members on each other and due to the peculiarities of the concerns, the judgement of company group may fundamentally change.

Based on the results of the implementation of capital consolidation it can be proven that in the individual books of the members of the company group the assets and liabilities, which would not appear in case the company group was considered as an independent legal entity, represent a substantial order of magnitude. Those asset elements were only created because the parent company performs certain activities not within its own business but "outsourced" into independent business. The size of assets which are indicated due to the legal, financial, accounting technical settlement that causes cumulations, and which assets do not include real performance, depend on the number of group members, their equity, the (horizontal and vertical) structure of the company group and ownership shares. In practice the business groups are in many cases set up based on not strategic but other – taxation and risk sharing – reasons.

As the result of the implementation of debt consolidation, the indicated assets, financial and income positions of the company group showed some slight improvement. The reason of that is that the receivables and liabilities against each other are not considered as "real" assets based on the principle of consistency, and were screened out. The size and proportion of cumulations is closely related to the judgement on the liquidity of concern members and the company group. Those receivables and liabilities normally do not entail any real money movement and are set off between the members of the company group. Therefore, from the point of financing, those receivables do not / may not offer a coverage for other liabilities, and those liabilities do not in reality mean any

financing problem. Based on that one can understand the great significance of the utilisation of consolidated annual reports parallel to individual reports for both the owners and creditors.

As a result of the implementation of income/expenditure consolidation, the indicated income position of the company group did not change in total because – as compared to the amount established following the implementation of the debt consolidation – the amount of balance sheet profit/loss remained unchanged. Due to changes in the profit categories, the individual profitability indicators showed various changes. The reason for that was that the sales revenue, income items and the cost, expenditure items which were settled against each other but which were not considered as "real" outturn based on the principle of consistency, were screened out, but the screening did not necessarily happen within the same profit category.

The implementation of income/expenditure consolidation did not have any impact on the indicated assets, financial position of the company group. Profitability was unchanged in total, although the value of individual profit categories changes depended on the nature of filtering.

Due to the implementation of interim result filtering and the settlement of company tax due to consolidation, the value of assets of the concern changed. Filtering of the interim results reduced the value of assets, and that was slightly balanced out by settling the value of company tax receivable due to consolidation. Due to the reduction in balance sheet profit/loss, equity also show the reduction. As the result of that, the indicated asset position of the company group deteriorated. Examining the percentage of debts within the company group it can be stated that its size increased. The reason for that is that due to filtering the interim results and settling the company tax associated with consolidation, the value of equity reduced. Regarding the amount of debts, it is recommended to examine the coverage of the debt amount which, due to the above reasons, further reduced, and no coverage was provided for the debt amount at the group of companies. Based on the liquidity indicators it can be stated that no major change took place in the liquidity position of the company group. Due to the implementation of the interim result filtering and the settlement of company tax receivable associated with consolidation, the value of profitability indicators substantially deteriorated.

The joint impact of the implementation of comprehensive consolidation is showed by the value of indicators calculated based on the cumulative and consolidated data, as listed in Table 1 below.

Table 1: Analysis indicators of the assets, financial and income positions of the model company group (Source: own calculations)

Cumulative Cumulative					
Item	consolidated data	Consolidated data			
Analysis indicators of asset position					
Capital strength	40.99%	10.64%			
Balance sheet profit/loss on capital <sub>A</sub>	-2.15%	-9.37%			
Balance sheet profit/loss on capital <sub>B</sub>	-7.12%	-170.62%			
Equity/registered capital ratio	331.29%	1820.21%			
Capital self-financing	1.77%	-6.54%			
Coverage on invested assets <sub>A</sub>	74.93%	23.26%			
Capital adequacy indicator	49.17%	12.92%			
Coverage of foreign capital by equity	0.732	0.124			
Capital multiplicator	2.440	9.400			
Indicators of the analysis on financial position					
Ratio of debt amount	36.78%	81.87%			
Ratio of equity	63.22%	18.13%			
Coverage on debt amount	171.86%	22.14%			
Liquidity rate	1.37	1.41			
Profitability indicators					
Operating profit on sales revenue, revenue	3.09%	3.50%			
Usual trading profit on sales revenue, revenue	0.99%	-1.06%			
Profit before tax on sales revenue, revenue	1.20%	-0.81%			
Profit after tax on sales revenue, revenue	1.09%	-0.94%			
Operating profit on capital	4.87%	23.99%			
Usual trading profit on capital	1.61%	-7.31%			
Profit before tax on capital	1.95%	-5.60%			
Profit after taxation on capital (ROE) Return on equity	1.77%	-6.54%			
Balance sheet profit/loss on capital	-2.15%	-9.37%			
Adjusted profit after taxation on capital	9.45%	30.21%			
Profitability on assets	0.80%	-0.60%			
Profitability on wages	9.71%	-5.66%			
Profitability on labour	5.93%	-3.45%			
ROA (Return on Net Assets)	0.80%	-0.60%			
ROI (Return on Net Investment)	0.72%	-0.70%			
Profitability of investments	7.18%	6.78%			

Based on all those changes it can be stated that the individual statements of concern members caused cumulations of such degree which question the foundation of decisions brought on the basis of annual reports. In the economic environment that has developed in the financial and economic crisis, it may be recommended to managers and owners of parent companies and to market players that in case of businesses belonging to a concern, their decisions should always be based on also the consolidated annual statements in addition to the individual annual statements because cumulations cover

such assets and results which may not be considered real and may not be used as a coverage or financing source.

# 3.4. Applicability of certain subtasks of consolidation to agricultural businesses performing activities that build on each other vertically

In the third stage of my research project I was searching for an answer whether the methods of the subtasks of comprehensive consolidation may be applied to other business organisations apart from concerns. Due to their peculiar features, among the business organisations I selected for the subject of my study the agricultural businesses that perform activities which are vertically built on each other. Regarding certain subtasks of comprehensive consolidation, the technique of capital consolidation and debt consolidation may not be applied even after modification and adjustments to activities within the businesses because the conditions of that are not available. Therefore, my study covered the filtering out of interim results and the area of income/expenditure consolidation.

The implementation of activities built on each other vertically, in two types of different business structures (company group and individual business) has the consequence that while with concerns the outturn of individual businesses is available based on the annual statement, and therefore the concern profits have to be specified through the consolidation and the filtering out of accumulations, in the case of agricultural businesses, the business profit/loss is available and the profits of each individual branch have to be separately specified in some ways.

The unbundled indication of the profits of individual branches would be enabled if own production stocks would be evaluated at market price. The evaluation at a real value of biologic assets is supported by IAS 41. on agriculture because the peculiar features of branches call for the development of a special evaluation system. As a matter of fact, all conversion processes contribute to the economic profits anticipated from biologic assets, which is exactly indicated by the evaluation at real value. The Accounting Act in effect excepts the evaluation based on acquisition value but the new direction should definitely be an evaluation on a market basis.

### 4. The new results and novelties of the study

The new results and novelties of my study are as follows:

- In my view, the presentation from practical aspects of the process of consolidation and parallel to that the development of solution options for interpretation and regulation problems arising from certain subtasks are regarded by me as novelties in the study.
- 2. The ownership structure, connection network and investment peculiarities of businesses operating in the food economy have been explored.
- 3. I have developed and applied a questionnaire with which I explored the regulation of consolidation process of parent companies and concern members operating in food economy, their system of data provision, accounting information concerning the size of cumulations filtered out, and the fact that the accounting policy has a fundamental effect on the contents of consolidated annual report.
- 4. Based on experience from the questionnaire survey I established that within concerns operating in food economy, owners are able to control assets of several billions with a relatively small equity.
- 5. The model company group developed based on the experiences of the survey is, in my view, a new result which enables to model the analysis of the asset, financial and income positions of concerns operating in food economy. I established that the indicated assets, financial and income positions of individual businesses show major differences as compared to the asset, financial and income positions of the concern. Individual figures may suggest a favourable picture of the business activity of individual member, but due to the impact on each other of concern members, judgement of the company group may be fundamentally different.
- 6. I established that in a modified form, the methods of consolidation may be applied also to determining the result of individual branches within businesses that perform activities that are built vertically on each other, and also that market prices offer an option to unbundle the profits of individual branches at businesses performing activities that are vertically built on each other.

#### 5. Practical utilisation of results

In order to support well-founded managerial decisions, economic specialists should understand what general and what specific effects the individual consolidation steps during the implementation of the consolidation of company groups had, characteristic of the given economic branch, in this case, food economy. Presentation of the consolidation of the model company group helped that understanding, and debt consolidation showed the features of company groups operating in Hungarian food economy as learned from the consolidated annual reports and the questionnaire survey. The statement of each stage of consolidation presents the trends by using specific data, which trends take place in the course of consolidation at similar company groups and due to the impact of similar economic events. Working with real data instead of the data of the model company group, and taking into consideration the economic events typical of the food economy, the effects of consequences will be similar to the assets, financial and income positions, as well. In my view the model may support the economic specialists to learn before their decision the consolidation effect of the given decision on the assets, financial and income positions of the company group.

The study of businesses performing activities that are built on each other vertically indicated that the separate income calculation of the individual branches within the businesses is not ensured presently by the current accounting requirements and the application of the realisation principle. The recommendations made in the study set up a direction for change and outlined options for solution.

### 6. Publications in the subject range of the study

### Books / Chapters of a Book in Hungarian:

1.	<b>Simon Szilvia</b> : Immaterális javak, tárgyi eszközök, készletek, időbeli elhatárolások. (4.2., 4.3., 5.2., 6. fejezet) In: Számvitel, könyvvitel és éves beszámoló. (Szerk.: Kresalek Péter) Verlag Dashöfer Szakkiadó, Budapest, 1997. ISBN 963 852 7943	0,15
2.	<b>Simon Szilvia</b> : Gazdasági események elszámolása. (5. fejezet) In: Kontírozás A-tól Z-ig. CD kiadvány. (Szerk.: Romsics Anikó) Verlag Dashöfer Szakkiadó, Budapest, 1999.	0,15
3.	Fridrich Péter - <b>Simon Szilvia</b> .: Esettanulmány a tőkekonszolidáció végrehajtására. Saldo Rt., Budapest, 1999., 60 p.	0,15
4.	Fridrich Péter - <b>Simon Szilvia</b> : Magyar számviteli konszolidáció – EU csatlakozás. TEMPUS JEP 13346-98. sz. Projekt BGF PSZFK Távoktatási Központ, Budapest, 1999. ISBN 963 00 3430 1, 140 p.	0,5
5.	<b>Simon Szilvia</b> : Konszolidált éves beszámoló. (13. fejezet) In: Számvitel a vállalkozások gyakorlatában. (Szerk.: Kresalek Péter) Verlag Dashöfer Szakkiadó, Budapest, 2001. ISBN 963 93131 57	0,15
6.	<b>Simon Szilvia</b> : Konszolidáció. (3.2, 7. fejezet) In: Számviteli törvény alkalmazása. (Szerk.: Dr. Sztanó Imre)Verlag Dashöfer Szakkiadó, Budapest, 2001. ISBN 963 931 318	0,15
7.	<b>Simon Szilvia</b> : Gazdasági események elszámolása. (2.11., 2.22., 5., 12. fejezet) In: Számviteli törvény alkalmazása. (Szerk.: Dr. Sztanó Imre) Verlag Dashöfer Szakkiadó, Budapest, 2001. ISBN 963 931 318	0,15
8.	Korom Erik – Madarasiné Szirmai Andrea - Miklósyné Ács Klára – Reizingerné Ducsai Anita – Romsics Anikó - Siklósi Ágnes - <b>Simon Szilvia</b> : Vállalkozói Könyvvitel II. Perfekt Kiadó Rt., Budapest, 2003., 2005., 2007., 2008., 2009. ISBN 963 394 620 4, 213 p.	0,15
9.	Baracskainé Dr. Boór Judit - Korom Erik - Miklósyné Ács Klára - Reizingerné Ducsai Anita - Romsics Anikó - Siklósi Ágnes - <b>Simon Szilvia</b> - Szirmai Andrea - Dr. Sztanó Imre: Pénzügyi számvitel. Perfekt Kiadó Rt., Budapest, 2003. ISBN 963 394 525 9, 400 p.	0,15
10.	Korom Erik – Madarasiné Szirmai Andrea - Miklósyné Ács Klára – Molnár Csaba - Siklósi Ágnes - <b>Simon Szilvia</b> – Dr. Sztanó Imre – Dr. Sztanó Imréné dr.: A számvitel időszerű kérdései. Perfekt Rt., Budapest, 2003. ISBN 963 394 508 9, 193 p.	0,15
11.	Miklósyné Ács Klára – Siklósi Ágnes – <b>Simon Szilvia</b> : A mezőgazdasági vállalkozások számviteli sajátosságai. Saldo Rt., Budapest, 2006. ISBN 13 978 963 164 6, 240 p. (29-49, 123-194, 207-211 p.)	0,33

12	. Fridrich Péter - <b>Simon Szilvia</b> –Dr. Sztanó Imre: A konszolidáció módszertana. Perfekt Kiadó Rt., Budapest, 2008. (022/2008) ISBN 978-963-394-739-5, 246 p.	0,33 <b>2,51</b>	
In	stitutional publication excerpt in foreign language:		
<ol> <li>1.</li> <li>2.</li> </ol>	<b>Simon Szilvia</b> : Several key features of leasing accounting. In: Híd kelet és nyugat között. (Szerk: Dr. Majoros Pál) BGF Tudományos Évkönyv, Budapest, 2003. pp. 228-236. <b>Simon Szilvia</b> : Globalization and consolidation in the food economy. In:	0,1	
	Üzlet és tudomány 2008. (Szerk: Dr. Radványi Tamás) BGF PSZFK, Budapest, 2009., megjelenés alatt	0,1	
In	stitutional publication excerpt in Hungarian language:		
1.	<b>Simon Szilvia</b> : A Nemzetközi Számviteli Standardok alkalmazása az élelmiszeripari vállalkozások konszolidációjánál. In: Magyarország a gazdasági fejlődés keresztútján. (Szerk: Dr. Majoros Pál) BGF		
	Tudományos Évkönyv, Budapest, 2004. pp. 224-232.	0,05	
		0,25	
Hungarian language periodical with précis in foreign language:			
	Simon Szilvia: A globalizáció és a konszolidációs számvitel alkalmazása a magyar élelmiszer-gazdaságban. Gazdálkodás, 52. évfolyam, 2009. 2. szám, pp. 145-155., ISSN 00465518  Simon Szilvia: Az élelmiszer-gazdaságban működő vállalkozások	0,20	
2.	konszolidációjának magyarországi tapasztalatai. SZAKma, 51. évfolyam, 2009. megjelenés alatt, ISSN 1419-6956	0,20	
		0,40	
Hungarian language periodical without a précis in foreign language:			
	Simon Szilvia: Részletre vétel, pénzügyi és operatív lízing, bérlet. Számadó, HVGORAC, 2002. 9. szám, pp. 3-7., ISSN 12165093 Simon Szilvia: Az élelmiszeripari vállalkozások konszolidációjának	0,10	
	néhány vonatkozása az IAS/IFRS szempontjából. Számadó, HVGORAC, 2009. megjelenés alatt, ISSN 12165093	0,10	
		0,20	
Pa	per published in Hungary in full in foreign language::	-, -	
1.	<b>Simon Szilvia</b> : The effect of the implementation of consolidation on the assets and financial and income position of consern operating in the food industry. AVA Congress 4., AGROINFORM Publishing House LTD,		
	Budapest, 2009, ISBN 987-963-502-897-9	0,15	
		0,15	
		3,51	
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