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The Necessity and Characteristics of Concern Analysis

SUMMARY: The analytical methodology of business management, and in particular, of individual accounting statements, is frequently discussed in domestic literature, together with the calculation of applicable, interpretable and assessable indicators, and also the key aspects of the analysis. Bearing that in mind, the question arises whether these indicators can be applied, and with what corrections, to the assessment of performance at concern level in relation to subsidiaries often pursuing quite different activities, or to the analysis of the company group's operations. Concern-level analyses, in relation to certain market stakeholders including, in particular, owners, potential investors and creditors, are needed also because in addition to examining the individual companies, it is concern-level analyses that enable risk assessment which may be based on consolidated financial data and may shed light on the reliability of the company group, the standard of its business management, and consequently, on the risk level of economic processes. In order to answer the research question, a model group of companies was set up using the experiences of a previous questionnaire-based survey on businesses that operate in the food economy and that fall under the scope of consolidation. The changes induced in the data of individual annual accounting statements by the individual steps of the consolidation processes were examined using the methodology of conventional balance sheet analysis. The results of the examination demonstrate that due to the complexity of company groups, the most marked change in the structure of assets and liabilities is caused by capital consolidation, however, debt consolidation may also have a significant effect thereon. Debt consolidation, filtering out the interim results, and revenue/expenditure consolidation have an impact that significantly depends on the complexity and intensity of internal relations between the members of the company group. Filtering out interim results and revenue/expenditure consolidation are typically more significant in company groups with a vertical structure, and induce decisive changes in the equity of the company group.

KEYWORDS: concern, consolidation, concern analysis, concern controlling

JEL CODE: M40

In a market economy, businesses establish various forms and degrees of relationships with market stakeholders in the course of their operations. In order for these relationships to be established and maintained, businesses provide information to the stakeholders in the market (Baricz, 1994). Newly established and existing relationships with businesses entail significant

risks for market stakeholders. In order to analyse and reduce the risks involved, they use the information provided by the businesses – primarily in the form of annual (simplified annual) reports (financial statements) and based on their analysis, they decide to establish or maintain an existing relationship, or perhaps, to terminate an earlier relationship.

Analysis is an important and essential method of assessing and evaluating a business.

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It means exploring correlations and economic phenomena, as well as the factors influencing those, thus serving as a way of better understanding the business; it promotes and also ensures the acquisition of the required information (Kresalek, 2004).

Over the past few decades, the world economy has witnessed a global concentration of capital, intellectual resources and material assets. This concentration is taking place as part of the globalisation process. A phenomenon accompanying globalisation is that legally stand-alone businesses become interrelated through interests and stakes. This interrelatedness limits market-based relationships between businesses, therefore, the presentation of their actual assets, financial and income position cannot be ensured on the basis of individual annual (simplified) reports (financial statements) (Friedrich et al., 2008). The restriction of market-based relationships leads to a shortage of information, which significantly increases the risk for market stakeholders, especially investors (owners) and creditors with regard to the businesses that belong to the company group. This is because through eventual asset and liability restructuring within the company group and links within the concern, assets may be transferred by the business in which the original investment was made or to which credit was originally granted to (an)other business(es) that could not, on the merit of their own data, raise external funding for its/their operations. The resulting shortage of information can be mitigated if the businesses related through interests are regarded as a single business and if the technical accounts that result from legal, financial and accounting settlements are eliminated by virtue of the unity principle. In addition to the individual report, the consolidated annual report (financial statement), which is exempt from cumulative effects, provides appropriate information regarding the assets, financial

standing and income position of the company group. Consequently, it is especially important from the point of view of risk mitigation that prior to adopting a decision as to whether or not to establish or maintain a relationship, market stakeholders not only examine and analyse the report of the individual business but also that of the company group, and adopt a decision only if they have a favourable view of both. Concern-level analyses in relation to certain stakeholders, especially the owners, potential investors and creditors, are necessary also because in addition to examining individual businesses (which have decisive business/economic relations with each other), concern-level analyses enable risk assessment based on consolidated financial data, shedding light on the reliability, standard of business management, and related economic process riskiness of the company group.

RESEARCH OBJECTIVE

The question arises from the above, as to what extent belonging to a company group can influence the asset structure and the evaluation of assets, financial standing and income position, and whether the indicators used in analysing individual reports can be applied, and with what corrections, to the assessment of performance at concern level in relation to subsidiaries often pursuing quite different activities, or to the analysis of the company group's operations.

Such an approach, among others, to the appraisal of business management is certainly justified, since the analysis of the – individual or consolidated group-level annual – report (a.k.a. balance sheet analysis) uses methods that rely primarily on the Balance Sheet and Profit and Loss Statement data in helping to understand the operations of a business and exploring its characteristic correlations. Due

to the summary nature of the report covering a specific period, the results of the analytical methodology also provide a summary assessment of a specific business and its various fields of operation (Bíró et al., 2012). Due to the content of the report, report-based analysis may primarily cover the assets, financial standing and profitability (income position) of the business presenting the report, mostly on the basis of calculating the indicators used in conventional (a.k.a. traditional) balance sheet analysis and on assessing their evolution (Schult, 1999; Küting – Weber, 2004; Haeseler – Kirchberger, 2005; Bíró et al., 2012). It must be taken into account in relation to all these that the effectiveness of balance sheet analysis and the extent to which the company group's business can be understood depend significantly on who has access to the appropriate information, how, and especially, to what extent they have access to it. Hence, the analysis of the report can fall into the following categories (Buchner, 1981; Küting – Weber, 2004; Adorján et al., 2005; Bíró et al., 2012)

- external balance sheet analysis (i.e. an analysis of the company group's reports by the external experts the reports produced and published are addressed to, with the analysis based on the figures in the Balance Sheet and Profit and Loss Statement, as well as the information set out in the Notes to the Accounts and the Explanatory Notes thereto), and
- internal balance sheet analysis (i.e. where the analyst has access not only to the data in the report but also to internal, non-public, data of the company group, so that internal and concern-level sources of information can also be used in the analysis).

Conventional balance sheet analysis is based on computing the indicators and assessing their evolution. The indicators are

consolidated and compact numeric expressions that present quantifiable phenomena in a concentrated form. They help concentrate the volume data in the report into assessable and expressive characteristics, so that they can be mapped relatively simply and so that they can provide a fast and comprehensible overview of complex economic correlations and processes, as well as the situation of the company (group) according to the objectives of the analysis (Bíró et al., 2012). Indicators basically fall into two major groups, which are as follows:

- absolute indicators (absolute figures) and
- relative indicators (ratios).

Some of the absolute indicators can be found directly in the report, and some others can be arrived at by simple computing (through addition and subtraction). However, their semantic content is often limited, because (Jacobs – Oestreicher, 2000)

- they reveal very little about the whole of the area from which they were drawn on the one hand,
- and they tell nothing at all about their sub- or super-ordinated relationship vis-à-vis other indicators.

Hence, absolute indicators are often used only as a take-off basis when analysing the balance sheet in order to compute the relative indicators. A relative indicator expresses the relationship between two absolute numbers connected by straightforward logic, in the form of a quotient (Bíró et al., 2012).

RESEARCH METHODS

In order to answer the research question specified in the previous chapter, a model group of companies was set up using the experiences of a previous questionnaire-based survey on businesses that operate in the food economy and fall under consolidation. Consequently,

the model reflects the particularities of the company groups that operate in Hungary's food economy. The model defines and incorporates interest-based links, consolidation methods and typical economic transactions that characterise the company groups operation in the food economy, as seen in the questionnaire-based survey and as demonstrated by the review of consolidated annual reports. The theoretical company group model and the consolidated Balance Sheet and Profit and Loss Statement represent only one of a number of possible options, but they certainly bear the common traits of the company groups examined in practice. (Simon, 2009)

The changes induced in the data of individual annual accounting statements by the individual steps of the consolidation processes were presented using the methodology of conventional balance sheet analysis. First, the changes induced by consolidation in the individual annual Balance Sheets and Profit and Loss Statements of the model company group members were analysed, followed by an analysis of the changes in the data of the consolidated Balance Sheet and Profit and Loss Statement. The data of the individual annual report and the Balance Sheet and Profit and Loss Statement resulting from consolidation only allowed for external balance sheet analysis. The balance sheet analysis included a comprehensive analysis of the assets, financial standing and income position. The examination of the structure of assets and liabilities was based on various relative indicators (relative distributions, vertical and horizontal indicators), bearing in mind the options for using such indicators. In the course of a comprehensive analysis of profitability, the profit categories and baselines used for the computation of profitability indicators (relative indicators) were selected so that they should allow for presenting the changes that resulted from consolidation.

RESULTS OF THE MODEL CALCULATION

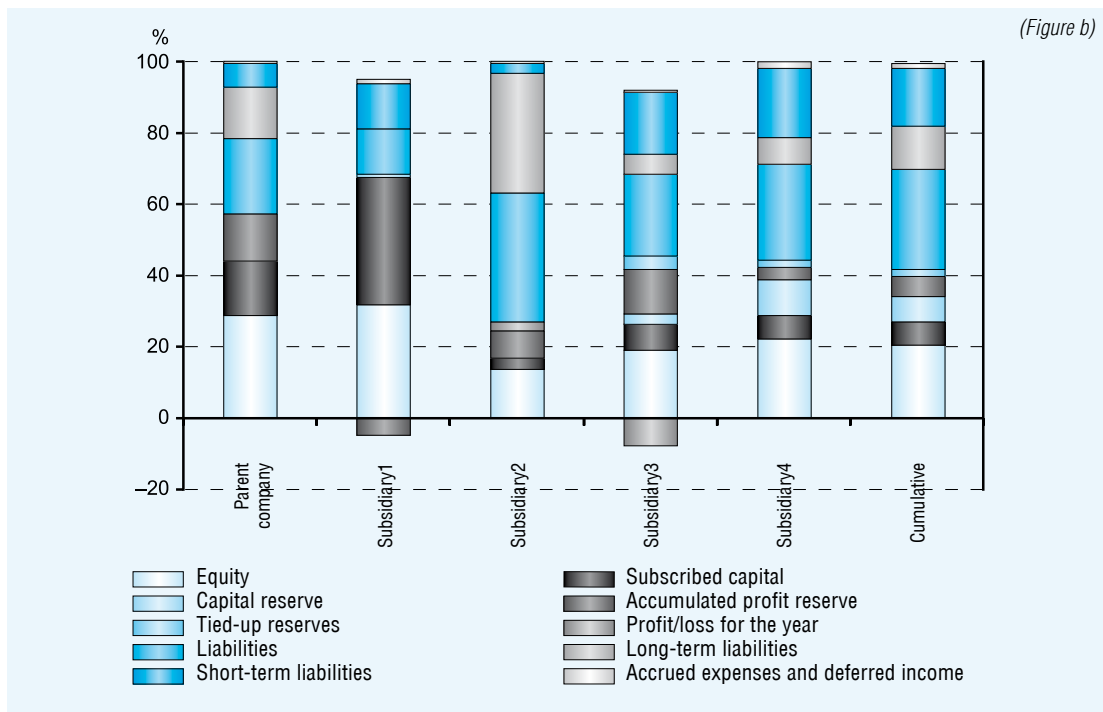
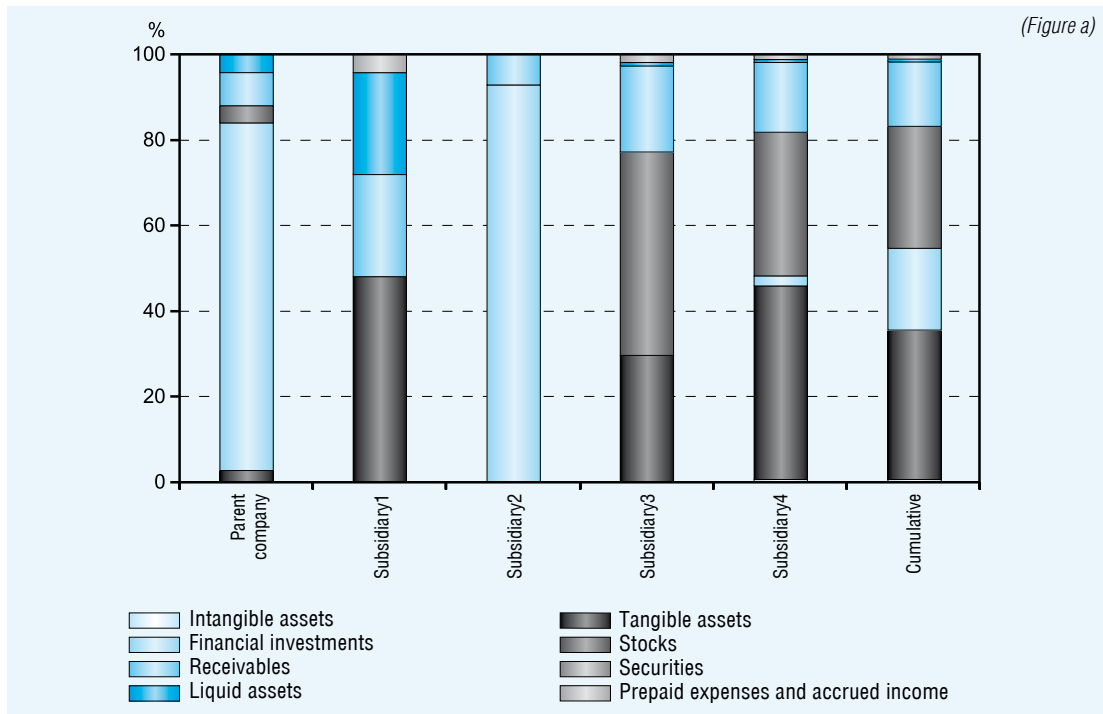
When examining the internal proportions of asset and liability groups, the asset structure is presented on the basis of comparing members of the company group. (See *Figure 1a–b*)

After comparing cumulative assets with individual assets, it is safe to say that the internal ratio of assets truly reflects the internal asset ratios of the businesses operating in the food economy. Within cumulative data, tangible assets and stocks represent a decisive portion. In the case of company groups, the parent company typically has a significant portion of invested financial assets; the reason is that this asset group includes the stakes in affiliated companies directly owned by the parent. (However, these items are filtered out during consolidation.) The data indicate that individual businesses have a significantly different asset structure from the cumulative asset structure of company groups. (This is due to the fact that the subsidiaries and jointly controlled businesses of a company group typically operate in only one of the three key food economy areas, i.e. agriculture, food industry and food trade.) (According to the questionnaire-based survey, this is the case for 94 per cent of the businesses surveyed. Among parent companies, this rate is 39 per cent.) The internal structure of liabilities does not reflect such extremes as that of the assets. The internal structure of cumulative group-level assets is more balanced than in the individual reports, which may have a special importance for the stakeholders who use and analyse those reports.

Based on the above, it is safe to say that the particularities of individual asset structures are typically less visible in the company group's consolidated asset structure. (The key indicators computed and examined on the basis of individual and consolidated company data, as well as their analysis, are included in *Annex 1*, see *Figures 2–5*.)

Figure 1a-b

COMPOSITION OF THE INDIVIDUAL AND CONSOLIDATED ASSETS AND LIABILITIES OF THE MODEL COMPANY GROUP AS A PERCENTAGE



Source: own calculations¹

The following section of the study examines the impact of full

- capital consolidation,
- debt consolidation,
- filtering out interim results, and
- revenue/expenditure consolidation,
- and, of the other steps of consolidation, computing the corporation tax difference due to consolidation on the assets, financial standing and income position of the company group, and how it changes the indicators presented.

The impact of capital consolidation

Fully inclusive capital consolidation causes changes in the financial assets, equity, and subordinated liabilities of the company group's balance sheet. The profit after tax, and consequently,

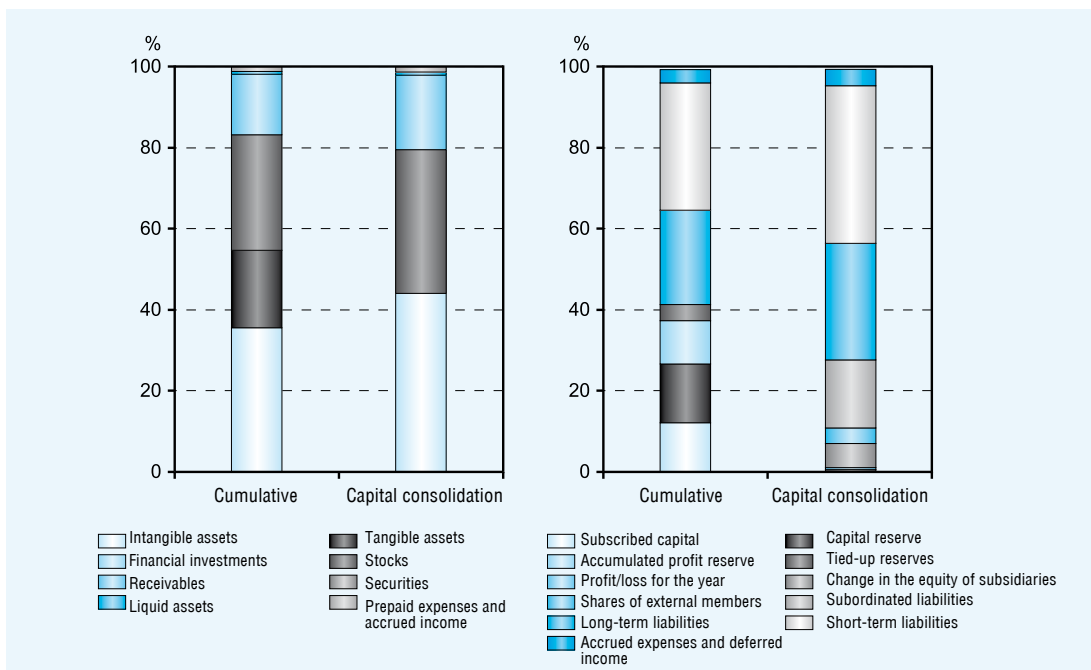
the profit/loss in the Profit and Loss Statement only change because of accounting for the current year's profit/loss to external owners.

After capital consolidation, the model company group's asset and liability structures changed as shown in *Figure 6*.

The impact of capital consolidation is reflected in significant changes to the asset structure relative to the consolidated cumulative report. In comparison to the cumulative data, the proportion of fixed assets in the model company group's asset structure decreased by 10.56 percentage points. However, this change should not be seen as unfavourable, since the decrease in fixed assets was the result of filtering out the direct and indirect permanent interests in affiliated companies, which had caused internal accumulation, i.e. non-real assets, and was eliminated by virtue of the unity principle. In comparison with the

Figure 6

THE MODEL COMPANY GROUP'S ASSET AND LIABILITY COMPOSITION IN PERCENTAGES BASED ON THE DATA BEFORE AND AFTER CAPITAL CONSOLIDATION



Source: own calculations

cumulative data, the internal structure of assets does not reflect such extremes as that of liabilities. Accumulations in capital reach 80 per cent of the cumulative consolidated equity, which were filtered out, i.e. offset by interests, in the course of capital consolidation.

One can conclude, consequently, that the business management of individual concern members may be viewed favourably, but the assessment of the same at group level changes fundamentally as the rate of indicators is influenced by changes in the asset structure.

The best way to present the impact of capital consolidation on assets and financial standing is by using the indicators shown in *Figure 7*.

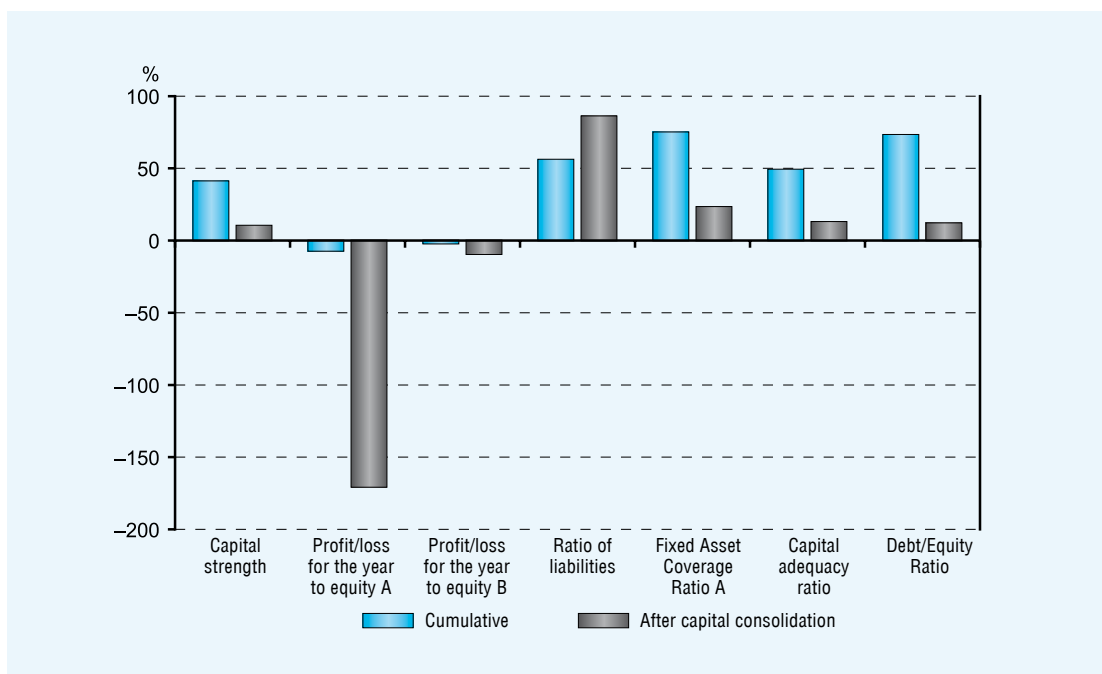
Based on the company group's balance sheet after capital consolidation, one may conclude that the concern presents a less favourable picture of assets and financial standing after capital consolidation than in light

of the indicators based on cumulative data. A significant decline in the equity growth indicator highlights potential problems with the implementation of the accounting principle of business continuity in the future, which clearly increases the market stakeholders' risk.

Based on an analysis of the changes induced by capital consolidation, one may conclude that significant changes occurred relative to the company group members' individual reports and relative to the company group's consolidated cumulative Balance Sheet (and Profit and Loss Statement) data. The group members' individual assets and financial standing differ significantly from the company group's assets and financial standing. Analysing the individual data cannot provide market stakeholders with reliable information, since merging the data and capital consolidation fundamentally impact the assessment of the assets

Figure 7

KEY ANALYSIS INDICATORS OF THE MODEL COMPANY GROUP'S ASSETS AND FINANCIAL STANDING AFTER CAPITAL CONSOLIDATION



Source: own calculations

and financial standing. The business management of individual members may be viewed favourably on the basis of individual data, but due to the impact of group members on each other and the particularities of the concern, the assessment of the company group may change fundamentally.

The results of capital consolidation indicate that the model company group members' joint asset pool based on their individual data includes a sizeable portion of assets and liabilities that cannot be regarded as real if the model company group is treated as an independent legal entity. These asset components came to exist only because the parent company "outsourced" certain operations to an individual business within the group, as opposed to keeping them in-house. The size of these accumulated assets due to legal, financial and accounting techniques which do not represent real performance depends on how many members there are in the company group, the size of their equity, the horizontal and vertical structure of the concern, the proportions of ownership; and it increases the market stakeholders' risks, since a significant portion of the assets held by the owners and taken into account by creditors as collateral cannot be regarded as real. It should be pointed out in this context that the structure of the concern may have a fundamental impact on the risk level, because in the case of a vertical structure, the vertical depth determines the extent to which unfavourable changes reach, and impact on, the parent company. In the case of a horizontal structure, risks may arise out of problems inherent in completely different operating profiles.

The impact of debt consolidation

In the course of the effectuation of the debt consolidation component of full inclusion, filtering out the accumulations caused minor

changes in the model company group's receivables and short-term liabilities. (See Figure 8)

As a result of debt consolidation, the model company group's assets and liabilities showed a very slight but perceptible improvement relative to the asset structure after capital consolidation.

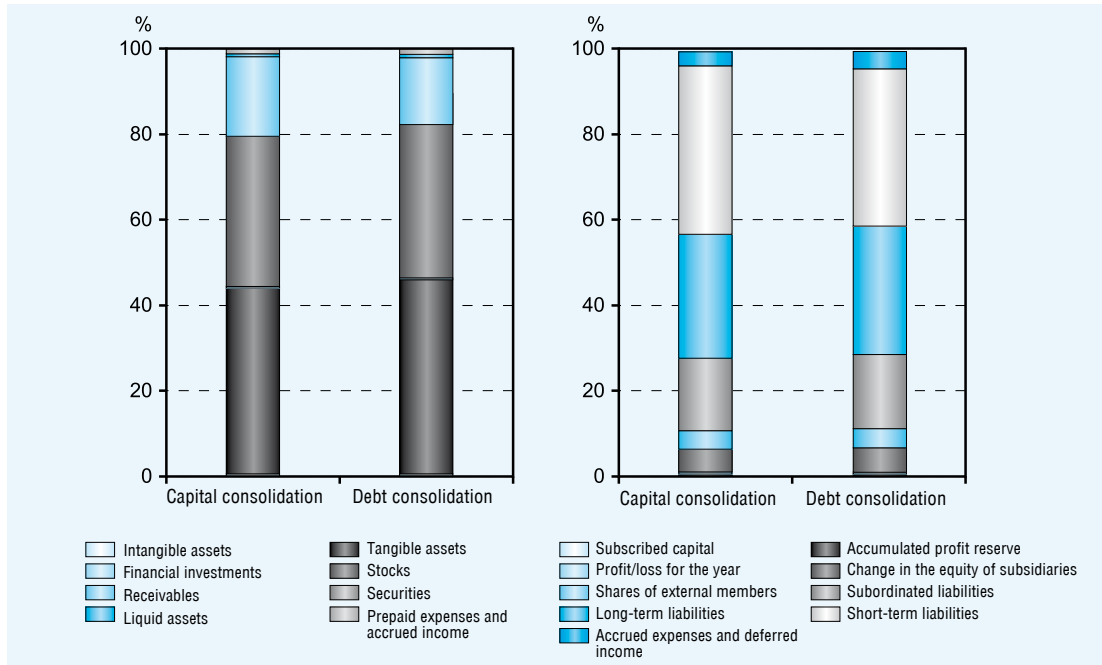
As a result of debt consolidation, the model company group's assets and financial standing showed a very slight but perceptible improvement. (See Figure 9) The reason for this was that the assets regarded as non-"real", i.e. receivables and liabilities offsetting each other, were filtered out by virtue of the unity principle. The size and proportion of accumulations were closely linked to the liquidity assessment of concern members and of the company group. These receivables and liabilities do not generally involve real financial movements, as they are simply offset between the members of the company group. So from the point of view of funding, such receivables do not cover other liabilities and such liabilities do not actually represent funding problems. All these may be very significant distorting factors from the point of view of assessing business management, i.e. this alone demonstrates that using consolidated annual reports in parallel with individual reports is extremely important for the owners and creditors (as well as for management of the concern, obviously) in identifying and assessing risks.

The impact of revenue/expenditure consolidation

In the course of the fully inclusive revenue/expenditure consolidation, filtering out the accumulations causes changes in the company group's sales revenues, revenues, costs and expenditures, i.e. there is no change after the revenue/expenditure consolidation in the model company group's asset and liability structures.

Figure 8

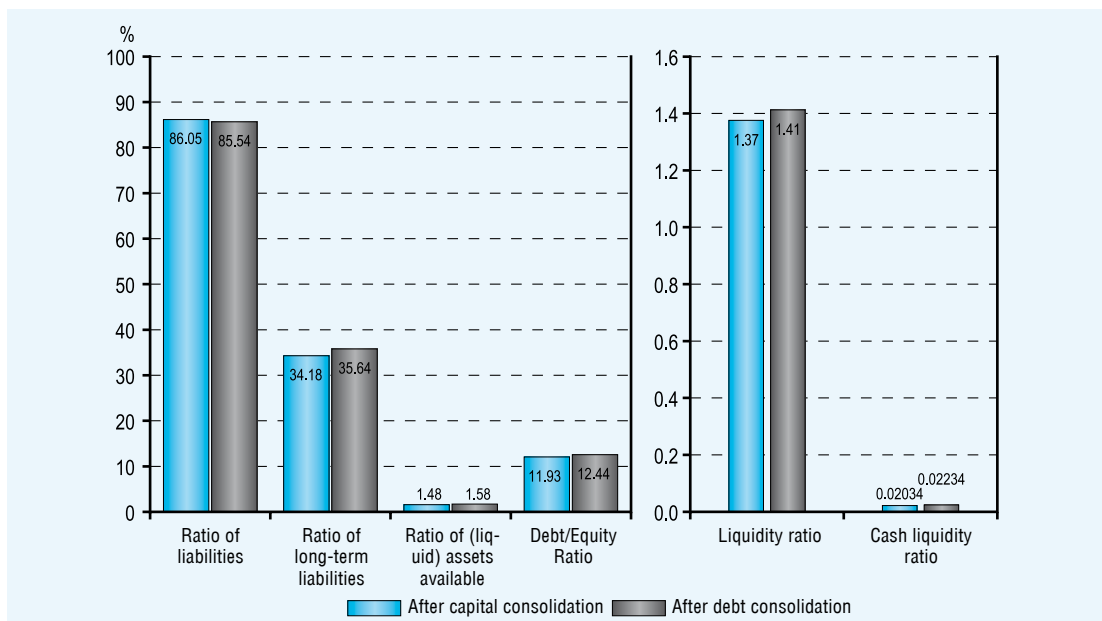
COMPOSITION OF THE MODEL COMPANY GROUP'S ASSETS AND LIABILITIES AS PERCENTAGES BASED ON THE DATA BEFORE AND AFTER DEBT CONSOLIDATION



Source: own calculations

Figure 9

THE MODEL COMPANY GROUP'S KEY ANALYSIS INDICATORS AFTER DEBT CONSOLIDATION



Source: own calculations

One can conclude based on the key indicators that the income position of the model company group (i.e. profit/loss for the year to equity) did not change, overall, after the revenue/expenditure consolidation, as the profit/loss for the year remained unaltered relative to the amount resulting from the debt consolidation. Some profitability indicators reflected varying degrees of change, as a result of changes in the profit categories. The reason for that is that by virtue of the unity principle, sales revenues, revenues, costs and expenditure vis-a-vis each-other are not regarded as “real” and are filtered out, but filtering did not necessary take place within the same profit categories.

Revenue/expenditure consolidation had no impact on the company group’s assets or financial standing. Profitability – in terms

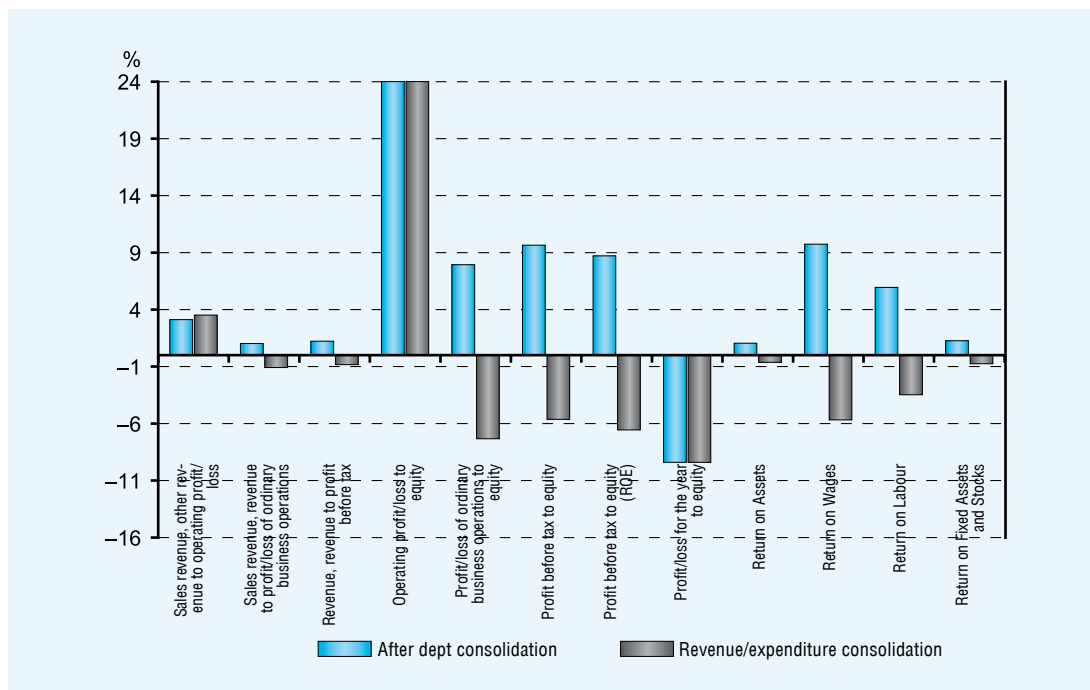
of the profit/loss for the year – remained unchanged, on an overall basis, though the values in some profit categories change depending on the nature of filtering (this is especially important from the point of view of assessing the profitability within the concern). (See Figure 10)

The impact of filtering out interim results

After the fully inclusive filtering out of interim results and after computing the corporation tax payable as a result of consolidation – due to the nature of the model company group’s consolidation – the group’s consolidated annual report, including the Balance Sheet and the Profit and Loss Statement, is already available. (See Figure 11)

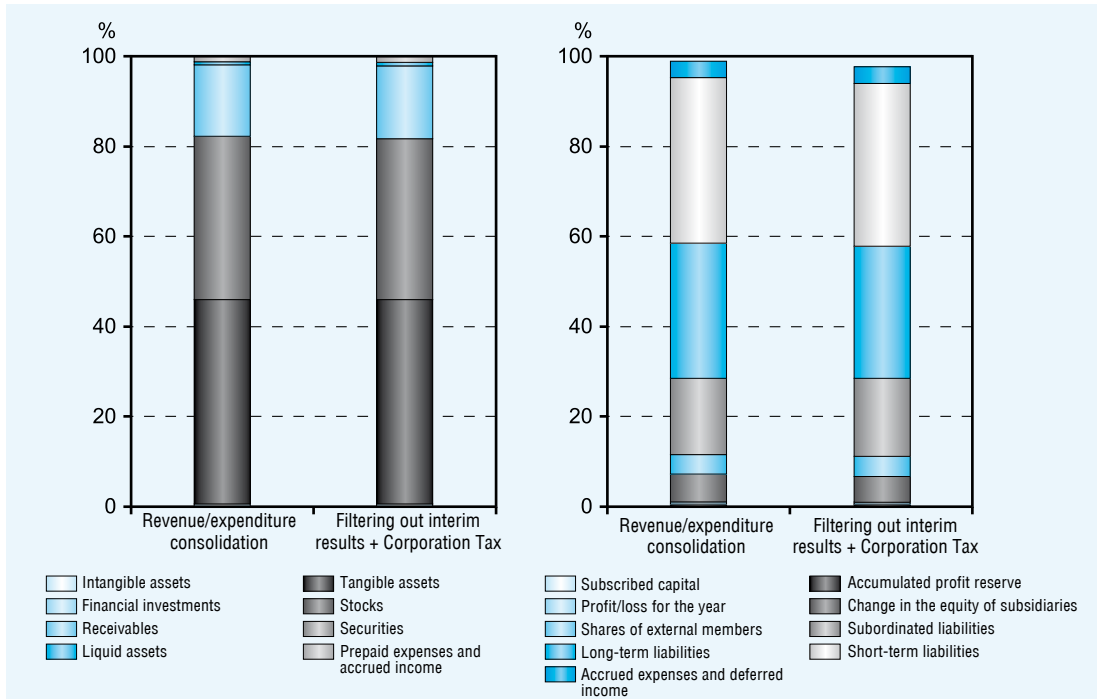
Figure 10

THE MODEL COMPANY GROUP’S KEY ANALYSIS INDICATORS AFTER REVENUE/EXPENDITURE CONSOLIDATION



Source: own calculations

COMPOSITION OF THE MODEL COMPANY GROUP'S ASSETS AND LIABILITIES AS PERCENTAGES, BASED ON DATA BEFORE AND AFTER FILTERING OUT INTERIM RESULTS



Source: own calculations

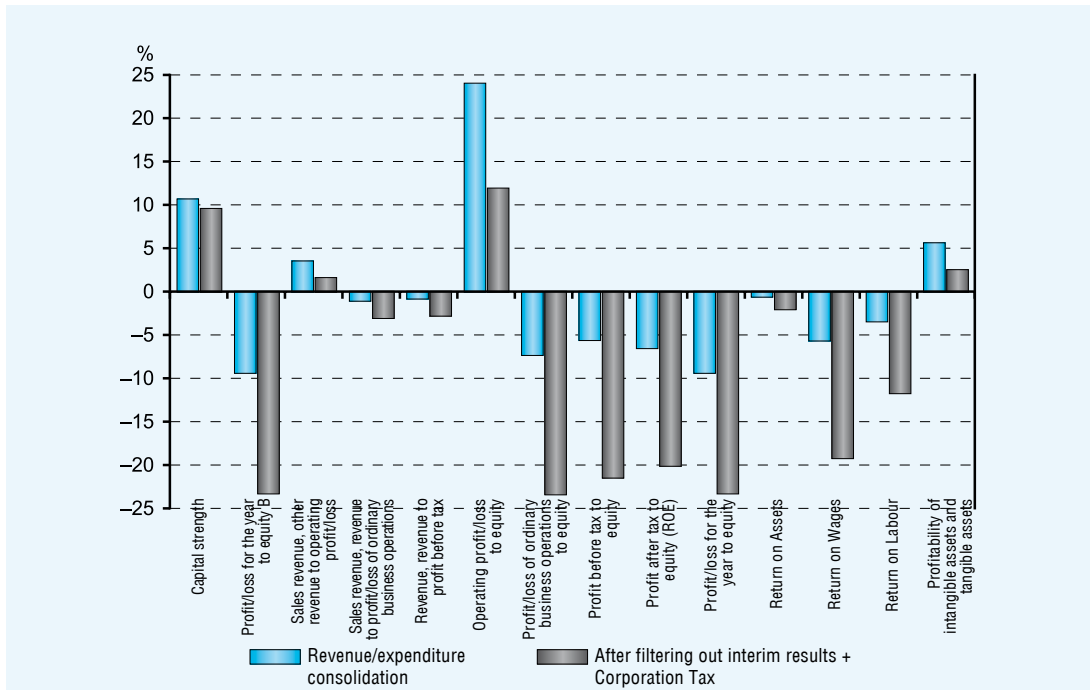
A very slight negative change occurred in the model company group's asset structure after filtering out the interim results and computing the consolidated corporation tax payable, relative to the asset structure resulting from revenue/expenditure consolidation. The proportion of fixed assets declined by 0.2 percentage points, a change caused by filtering out the interim results of the sale of tangible assets. The proportion of current assets within total assets remained unchanged. The equity portion of the model company group's liability structure decreased by 1.08 percentage points, a change that can in principle be regarded as unfavourable. This is due to the fact that the profit/loss of the business for the year is reduced by filtering out the interim results, which influences the amount of equity in the balance sheet. In

other words, it should be pointed out that the equity portion should be assessed bearing in mind this purely methodological effect that may distort the analysis of the balance sheet. (See Figure 12)

The concern's asset value changed as a result of filtering out interim results and computing the consolidated corporation tax payable. Filtering out interim results reduced the value of the assets, though this was slightly offset by the computation of the consolidated corporation tax payable. Equity reflected a decrease, due to the decrease in profit/loss for the year. As a result, the company group's asset situation appears to be worse than prior to the performance of these measures. Having examined the company group's debt ratio, one may conclude that the debt ratio increased relative to the asset structure resulting from the revenue/expendi-

Figure 12

THE MODEL COMPANY GROUP'S KEY ANALYSIS INDICATORS AFTER FILTERING OUT INTERIM RESULTS AND AFTER COMPUTING THE CONSOLIDATED CORPORATION TAX PAYABLE



Source: own calculations

ture consolidation. The reason for this is that the equity value decreased as a result of filtering out interim results and computing the consolidated corporation tax payable. In light of the liquidity indicators, the company group's liquidity position did not change materially. The profitability indicators changed unfavourably as a result of filtering out interim results and computing the consolidated corporation tax payable, relative to the asset structure resulting from revenue/expenditure consolidation.

Continued research

The results shown represent the first stage of our research. It is necessary to move forward toward both external and internal balance

sheet analysis, and also toward concern controlling. In relation to external balance sheet analysis, we wish to examine the credit institutions' actual methods of analysis, i.e. how concern analysis takes place in their practice, what are the typical indicators used when rating a company group or businesses that are subject to consolidation. Closely related to that, we also wish to conduct research into the indicators used for the balance sheet analysis of concerns, so that we can compare the indicators used within the concern vs. by credit institutions, along with their scope and content, in order to identify the differences (as well as similarities). Our other research objective is to explore the methods of analysis (i.e. indicators) used in the practice of concern controlling, in order to identify the key differences from the

above in the procedures of analysis. As a result of all these, the final stage of research aims to examine whether a complex indicator or a minimalist set of indicators can be developed with regard to the assets, financial standing and income position of a company group and its businesses that are subject to consolidation, to allow for their proper assessment and qualification for a variety of purposes.

Continued research, however, will have to take into account that an amendment to the Accounting Act (Act C of 2000 on Accounting) entered into effect as of 1 January 2016, which requires the revaluation of some profit categories. The scope of other revenues, other expenditure, and revenue/expenditure from financial operations changed, and the category of extraordinary profit/loss (as well as profit/loss for the year) was discontinued. Consequently, the indicators used in the analysis also need to be corrected. The amendment to the Accounting Act means that even the data from the year preceding the business year of 2016 (i.e. the business year starting in 2015) must be presented in accordance with the new rules. Thus the indicators for the business year of 2015 need to be revalued. Economic decisions based on comparing timelines, however, cannot rely on the examination of just two periods, i.e. the baselines for earlier years (before the 2015 business year) must be corrected prior to long-term analysis, to ensure the comparability of data.

PROPOSALS

Based on the results of our investigations, it is safe to say that the items included in the company group members' individual annual reports include so much internal accumulation that this questions the soundness of the economic decisions adopted on the basis of analysing these reports. This clearly suggests that

market stakeholders should, by all means, base their decisions on an assessment of the consolidated annual reports, including the Balance Sheet and Profit and Loss Statement, in addition to the assessment of the company group members' individual annual reports. Since the accumulations include assets and profit/loss that cannot be regarded as genuine, they cannot be used as coverage or sources of funding. By observing the above, balance sheet analysis will yield more realistic results and help mitigate the market stakeholders' risks.

The presented research results clearly established that concern-level analyses bring about a peculiar situation, since they are not at all about a mere totalling or averaging of the individual reports' data or the indicators derived from them. The selection and calculation of indicators for the purposes of assessment must, therefore, follow peculiar considerations, including the definition of the content of indicators (i.e. economic notions at the concern level), the techniques of computing them, the consolidation methodology, and the determination of numeric values. At the same time, it has also been demonstrated that the methodology used in analysing individual reports can also be applied to the analysis of the combined assets, financial standing and profitability position of a company group's businesses.

Our work fundamentally relied on the criteria used for external balance sheet analysis. In addition to external balance sheet analysis, the internal analysis of the balance sheets of individual businesses and company groups may also have special significance, but as we saw earlier, not all market stakeholders have sufficient information to implement it. Such information is fundamentally available to the managers of the business(es) and the owners at a certain level, so internal balance sheet analysis can only assess, and consequently, mitigate risks for the benefit of these stakeholders. Ongoing high-quality concern management

relies not only on the results of internal balance sheet analysis, but must also significantly rely on a well-established and well-run concern controlling system, to be implemented in the form of decentralised controlling. Conse-

quently, issues similar to the ones examined must be borne in mind when interpreting the controlling reports and statements – at subsidiary and concern-level (especially in the assessment of receivables and liabilities).

ANNEXES

ANNEX 1

The key indicators computed and examined on the basis of individual and cumulative company data are as follows.

A brief analysis to Figure 2

The individual businesses' differences can be observed well in the indicators Fixed asset coverage ratio (A) and Capital ratio (fixed assets and stocks), which show characteristic fluctuations relative to the indicators computed using cumulative data. They appear in the context of capital strength (i.e. the proportion of equity within total liabilities), which shows significantly less fluctuation (based on Capital strength indicators). The values of the indicator Fixed asset coverage ratio (B) clearly show that the total permanent liability value of every business is completely in line with the value of fixed (permanent) assets (all subsidiaries, the parent company and also the indicators derived from the cumulative data clearly demonstrate the classic match; – disregarding the assessment of the permanent commitment of current assets, which cannot be examined in the framework of external balance sheet analysis). The particularities of individual businesses even out spectacularly in the case of the Return on Equity and the indicators related to the equity structure, spanning different orders of magnitude (and directions) through ratios expressed on the basis of cumulative data. (Profit/loss for the year to equity, versions A and B).

A brief analysis to Figure 3

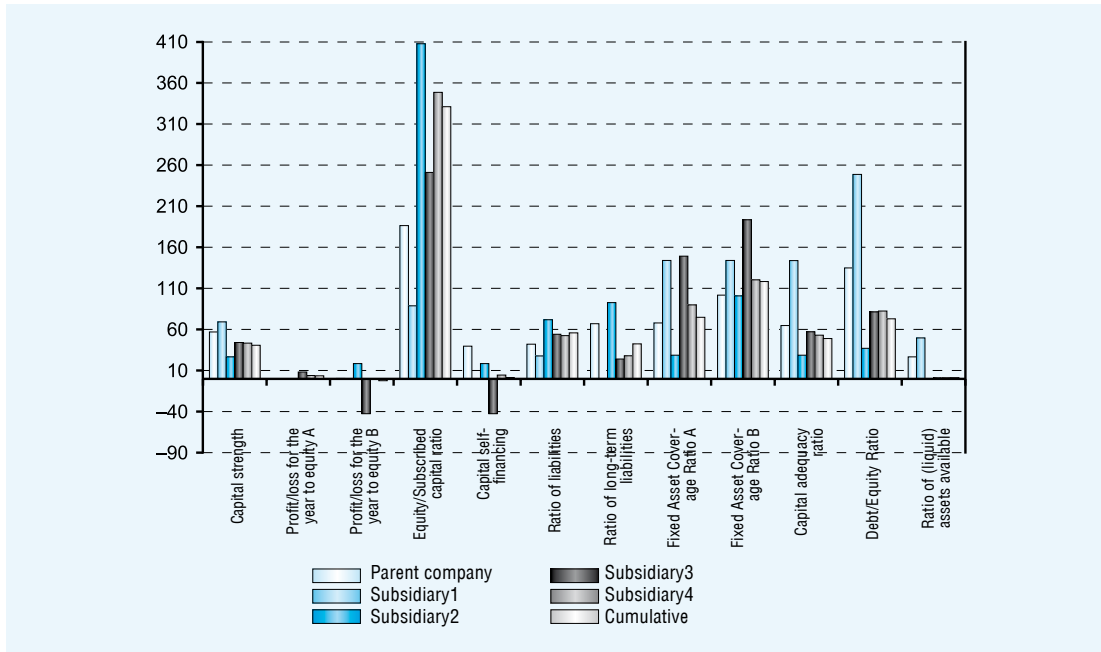
The liquidity indicators (i.e. the ratios characterising the short-term financial situation) derived from the balance sheet – and offering a very generous opportunity for assessment due to time-based data – present a relatively consistent picture, especially about individual businesses; they show clearly whether the assets that can be sold within the year exceed the liabilities that become due within the year; consequently, the indicator derived from the consolidated data can also be accepted as reliable. At the same time, the differences in asset structure result in cash liquidity (immediate liquidity) differences between one subsidiary (Subsidiary1) and the other subsidiaries, as well as the parent company. Here, the “disappearance” of individual business particularities is very significant.

A brief analysis to Charts 4 and 5

The equity profitability ratios and their summary, interpreted as equity structure indicators based on cumulative data, play a strong role in the analysis of profitability. These indicators strongly point out that the analysis of profitability must be a very important task within a concern, since there are major differences between the indicators based on the cumulative data and those based on the data of the individual businesses (c.f. equalisation).

Figure 2

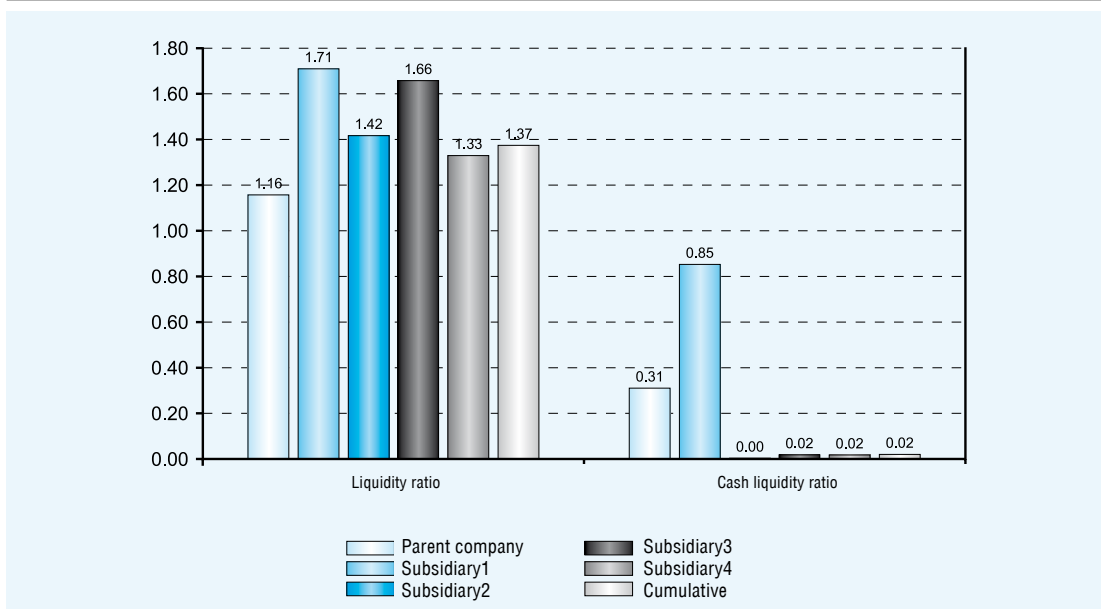
KEY ANALYSIS INDICATORS OF THE MODEL COMPANY GROUP'S INDIVIDUAL AND CONSOLIDATED (CUMULATIVE) ASSETS AND FINANCIAL STANDING



Source: own calculations

Figure 3

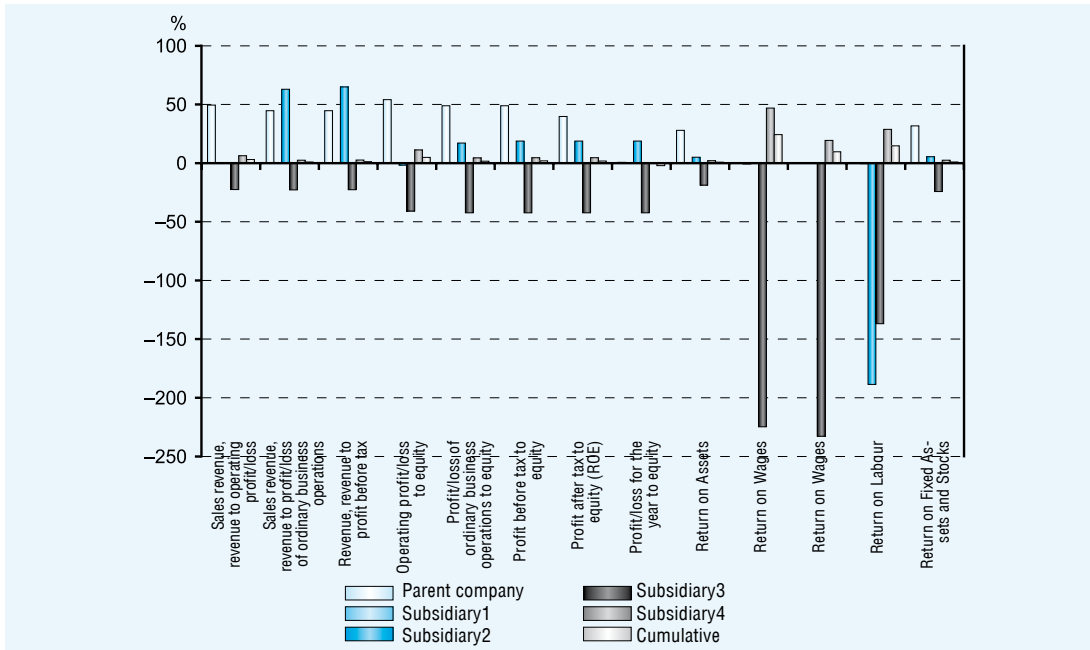
KEY ANALYSIS INDICATORS OF THE MODEL COMPANY GROUP'S INDIVIDUAL AND CONSOLIDATED (CUMULATIVE) FINANCIAL STANDING



Source: own calculations

Figure 4

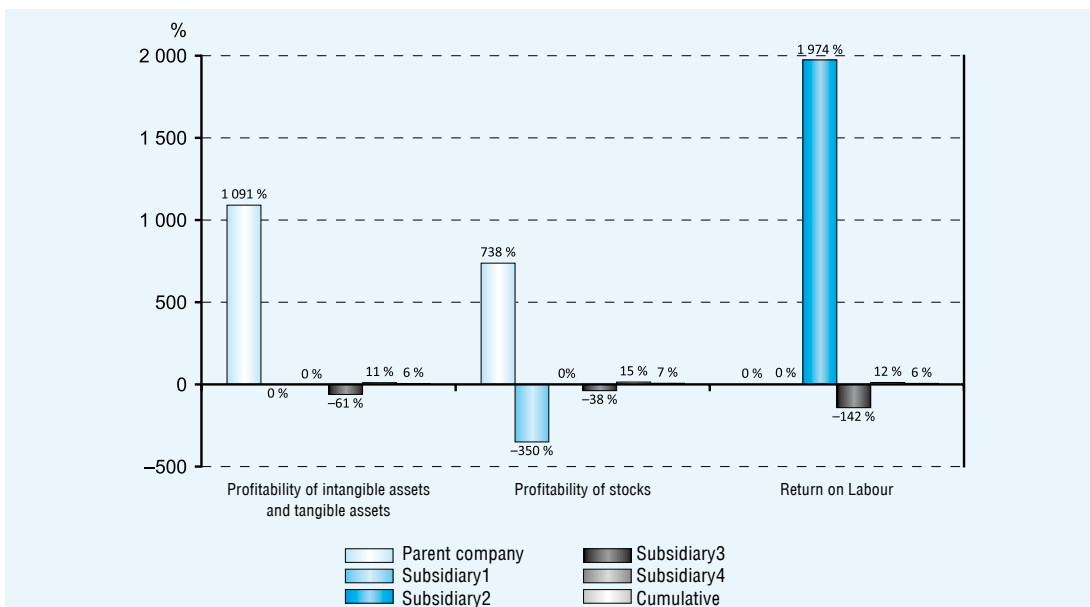
KEY ANALYSIS INDICATORS OF THE MODEL COMPANY GROUP'S INDIVIDUAL AND CONSOLIDATED (CUMULATIVE) PROFITABILITY



Source: own calculations

Figure 5

KEY ANALYSIS INDICATORS OF THE MODEL COMPANY GROUP'S INDIVIDUAL AND CONSOLIDATED (CUMULATIVE) PROFITABILITY



Source: own calculations

ANNEX 2

Formulae to compute the indicators included in this study

Designation	Calculation of indicator
Analysing the evolution of assets	
Capital strength	$(\text{Equity}/\text{Liabilities Total}) \times 100$
Profit/loss for the year to equity A	$(\text{Profit/loss for the year}/\text{Subscribed capital}) \times 100$
Profit/loss for the year to equity B	$(\text{Profit/loss for the year}/\text{Equity}) \times 100$
Capital self-financing	$(\text{Profit after tax}/\text{Equity}) \times 100$
Ratio of liabilities	$(\text{Debt}/\text{Liabilities Total}) \times 100$
Ratio of long-term liabilities	$(\text{Long-term liabilities}/\text{Liabilities}) \times 100$
Fixed Asset Coverage Ratio _A	$(\text{Equity}/\text{Fixed assets}) \times 100$
Fixed Asset Coverage Ratio _B	$[(\text{Equity} + \text{Long-term liabilities})/\text{Fixed assets}] \times 100$
Capital adequacy ratio	$(\text{Equity}/(\text{Fixed assets} + \text{Stocks})) \times 100$
Debt/Equity Ratio	$(\text{Equity}/\text{Liabilities})$
A comprehensive analysis of the evolution of financial standing	
Liquidity ratio	$(\text{Current assets}/\text{Short-term liabilities})$
Cash liquidity ratio	$(\text{Liquid assets}/\text{Short-term liabilities})$
Ratio of (liquid) assets available	$(\text{Liquid assets}/\text{Current assets}) \times 100$
A comprehensive analysis of the evolution of profitability	
Sales revenue, operating profit to revenue	$[\text{Profit of business operations}/(\text{Net sales revenue} + \text{other revenue})] \times 100$
Sales revenue, ordinary business profit to sales	$[\text{Ordinary business profit}/(\text{Net sales revenue} + \text{other revenues} + \text{Profit/loss from financial operations})] \times 100$
Sales revenue, Profit before tax to revenue	$[\text{Profit before tax}/(\text{Net sales revenue} + \text{total revenue})] \times 100$
Operating profit/loss to equity	$(\text{Operating profit}/\text{Equity}) \times 100$
Ordinary business profit/loss to equity	$(\text{Ordinary business profit}/\text{Equity}) \times 100$
Profit before tax to equity	$(\text{Profit before tax}/\text{Equity}) \times 100$
Profit after tax to equity (ROE, <i>Return on Equity</i>)	$(\text{Profit after tax}/\text{Equity}) \times 100$
Profit/loss for the year to equity	$(\text{Profit/loss for the year}/\text{Equity}) \times 100$
Return on Assets	$(\text{Profit before tax}/\text{Balance sheet total}) \times 100$
Return on Wages	$(\text{Operating profit}/\text{Payroll}) \times 100$
Return on Wages	$(\text{Profit before tax}/\text{Payroll}) \times 100$
Return on Labour	$(\text{Operating profit}/\text{Personnel expenditure}) \times 100$
Return on Labour	$(\text{Profit before tax}/\text{Personnel expenditure}) \times 100$
Profitability of intangible assets and tangible assets	$[\text{Operating profit}/(\text{Net value of intangible assets} + \text{net value of tangible assets})] \times 100$
Profitability of stocks	$(\text{Operating profit}/\text{Stocks}) \times 100$
Return on Fixed Assets and Stocks	$[\text{Profit before tax}/(\text{Fixed assets} + \text{Stocks})] \times 100$

NOTE

- ¹ The significant amount of data/figures regarding the parent company and subsidiaries are presented in charts to provide a better overview, and by way of simplification, we disregard the fact that negative ratios do not exist.

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