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INVESTIGATION OF EQUITY RISK PREMIUM IN HUNGARIAN FOOD INDUSTRY

Case Study

Keywords
Hungarian food industry,
Financial analysis,
Equity risk premium

JEL Classification
G32, G39, Q14

Abstract

Official list of top500 companies according to annual revenue and net profit is provided and publicized in Hungary every year by contribution of international data service corporations as Bisnode or Creditreform. The reliability of these orders can be controlled through corporate information database of Opten or Central Statistical Office. The main purposes of this study is to identify the most important leading companies of Hungarian food industry on the basis of revenue and net profit after tax orders and to analyse financial features and changes of these in period of 2010-2015. The main focus is on the investigation of capital structure, solvency and profitability (particularly return on equity) using financial indicators. Our hypothesis is that the accompanies of leading position both in revenue and net profit are safe capital structure (low debt and loan ratio), stability in solvency and positive equity risk premium. The research is based on official annual reports, relevant macroeconomic data and international literature of financial analysis.

ANALYSIS OF THE INDUSTRY AND LITERATURE REVIEW

The main goal of this study is to analyze the financial situation of the leading companies in Hungarian food industry in the period from 2010 until 2015. Based on the figures stated in the annual reports and the relevant macroeconomic indicators, it has been investigated whether companies that perform outstandingly in terms of sales revenues and profit after taxes can present excellent data also when capital structure, short-term liquidity and return on shareholder's equity are concerned.

As the sectoral background of our research – with reliance on studies presented in the related literature, as well as figures stated in the data of agricultural research organizations and professional institutions –, the most important characteristics and tendencies affecting the entire industry.

According to the data provided by the Federation of Hungarian Food Industries (ÉFOSZ – FHFI), Hungarian food industry, featuring a structure that is comparable to its European counterpart, has around 1% share from European food production, and therefore ranks 16th among the member states of the European Union. Between 2009 and 2014, the gross production value and the number of businesses were on the rise, but the number of employees was shrinking with the concurrent stagnation of the percentage rate of food consumption (Table 1). An important factor was the country's accession to the EU, bringing about an increase in export volumes, as well as the dominance of multinational retail chains in dictating prices and other commercial conditions (Csáki–Jámbor, 2009).

On the other hand, smaller agricultural producers faced considerable problems with having access to modern food retail chains (Fertő, 2011). The growth rate of the performance of food industry has a downward tendency with the main reasons being frequently changing ownership structures, low levels of productivity, poor capitalization, weak positions in the market due to the existing concentration. However, the development of vertical integrations has an essential role in shaping the future of the food economy (Kapronczai, 2011).

In the years after the EU accession, the share of the sector from the performance of the national economy saw a downturn because of the changed competitive environment and the global economic crisis (Table 2). Hungary is a net exporter of food products, while the share of import in the food industry gradually increases, and within the overall export volume the proportion of processed food products consistently decreases.

A study by Hartmut (2009) proves that in 2008, during the crisis – similarly to several other countries in the European Union – Hungary was able to enhance her positive balance in food economy, based on which the country can be regarded as one of the beneficiaries of the crisis, as opposed to Denmark. From among the EU member states, Hungary's largest export market is Germany, followed by Romania and Italy. In view of both Hungary's export and import activities, it is products belonging to plant and animal oils that prevail. Furthermore, in export trading volumes are significant with respect to meat and dairy products (Oleksandr et al., 2013; Vőneki et al., 2015).

Within the sector, the significant of export sales has been rising since 2009. According to the associated figures of the Agricultural and Rural Development Agency (ARDH – MVH), in 2014 the share of export from the total sales of food industry was about 40%. Concurrently, though at a minor rate, domestic sales were steadily decreasing. Juhász and Hartmut (2013) studied the competitiveness of food exports in the export scene.

Hungary's food industry shows certain duality, as the large majority, i.e. more than 95% of business associations in the sector are micro-, small and medium-sized enterprises (SME sector), whereas more than 70% of the production value is generated by large companies. Another characteristic of these large companies is that while their number is rather small, they collect more than half of the sales revenues of the industry, they engage more than one-third of employees (Table 3). They also have a dominant role in export sales, as more than 65% of the export revenues of the entire sector belong to them.

Based on the 2016 figures of the Ministry of Agriculture – shown separately for the individual, above-described groups of companies – capital structure information, liquidity and profitability rates are also available for the entire sector (Table 3), and these data favour large companies in all the three fields. From 2011 until 2015, sales revenues were consistently improving, similarly to values for capital structure, liquidity, return on assets (ROA) and return on equity (ROE). In 2015, more than 90% of the enterprises (with the exception of micro-businesses) could be described with favourable aggregated gearing ratios, liquidity rates and ROE values. Therefore, it seems to be reasonable to examine whether the sets of data over time for the leading group of companies show similarly positive processes.

Another important criterion of analysis in the industry is what categories can be established in the industry with respect to the form of ownership

(proprietorship), and what business operation data describe these segments (Table 4). In view of employment, sales revenues, operating profit and profit before taxes, the dominant companies are fully Hungarian-owned entities as a result of their number and economic activities, and in recent years this advantage has gradually increased. Their indebtedness is the lowest in the three examined groups. In contrast, companies in foreign ownership comparatively expend a double overall amount on wages and salaries, and therefore they are able to generate considerable operating profit and profit before taxes through their operations.

Table 5 suggests that when the ownership structure is concerned the largest proportion of export sales revenues in food industry – i.e. 50–60% of the total amount of sales in the period under review – was produced by fully foreign-owned companies. Another important fact is that the value of the export sales revenues of companies in 100% domestic ownership is on a steady rise, and in recent years their share from total sales has reached up to 40%. Since 2013, the export sales revenues of Hungarian-owned businesses have approached the aggregated data of foreign companies (Table 5). The main underlying reasons include the growth of production at operating and exporting companies, as well as the developing effect of changes in the ownership on management (Ministry of Agriculture, 2016).

SAMPLE SELECTION AND METHODOLOGY

During the research, our hypothesis was tested on a clearly defined, narrow group of leading companies for which the calculations were also made.

From year to year, Creditreform Kft., an international information provider and analyst publishes the rank of the largest, Top500 Hungarian companies based on their sales revenues and profit after taxes. The relevance and accuracy of the data sets can be verified against the database of the Hungarian Central Statistical Office (HCSO – KSH), the www.e-beszamolo.im.gov.hu website and with the use of the interface of the Opten company information portal. The reliability of data has been checked from these sources. Year after year since 2011, the above-mentioned ranks for both sales revenues and profit have come to include more and more food industry companies. By 2015, their number had substantially increased (Table 6).

Those companies have been selected for inclusion in the sample that are present in both the sales revenue and profit ranking. Based on the 2014 ranking, 14 companies have been included in the sample: Bonduelle Central Europe Ltd.; Bunge cPlc.; Coca-Cola HBC Magyarország Ltd.; Fornetti Ltd.; Gallicoop cPlc.; Hungary-Meat Ltd.; Hungrana Ltd.; Master Good Ltd.; Mogyi Kereskedelmi Ltd.; Nestlé Hungária Ltd.; Pick Szeged cPlc.; Scitec Ltd.; Tolnatej cPlc.; Zwack Unicum Plc. 13 of these businesses reappeared in both ranks for 2015.

Hereunder, the short names of these companies presented in the sample will be used for references. Table 7 shows the precise description of the subsectors of these sample companies alongside their core activities and ownership structures. Then, it has also been examined which of the sample companies have been permanently present in both list in the period since 2011 (Table 8).

In our research hypothesis, we have assumed that the leading positions of these companies reflected in their sales revenues and profit figures are accompanied by secure capital structures (low gearing), steady liquidity and relatively high returns on equity. With respect to the return on shareholder's equity, it has been tested whether in the studied time interval the companies in the sample proved to be able to achieve permanent risk premiums from year to year. In other words, whether the examined businesses can be described by such a series of values for the return on equity that ensures the realization of any excess earnings over the risk-free rate in the analyzed interval for the shareholders.

In order to create a proper basis for our research and perform the analyses, we have collected and systematized the public balance sheet, profit & loss and supplementary note information for the 14 companies in the sample, and consequently we have set up an independent database for the 2010–2015 under review. This database covers the annual report data of the 14 companies in question for 6 years. For each company and every year, we have processed at least 50 piece of information, the financial indicators have been used for evaluation purposes, which on the aggregate has led to the evaluation and systemization of a database containing minimum 4200 elements.

We have tested our hypothesis by conducting research with reliance on financial indicators (Virág-Fiáth, 2010; Droj, 2012; Katits-Szalka, 2015, Špička, 2015).

The capital structures of the companies have been analyzed with respect to the debt ratio. The values and ratios of credits and loans have been separately examined among liabilities (Rajan–Zingales, 1995; Tálas–Rózsa, 2015). This approach has served the purpose to point out that real financing risks are

represented by payables to external lenders. In the case of foreign-owned subsidiaries, it has been assumed that they operate without credits or just minimum gearing ratios, and therefore for them even potentially higher debt ratios would not mean real financial risks, because such liabilities exist only for payables to affiliated enterprises (funds furnished within groups) (Balla–Mundaca, 2015). For foreign-owned subsidiaries (Bonduelle, Bunge, Coca-Cola, Hungrana, Nestlé, Scitec), it has also been suggested that for owners holding sufficient market shares, as well as securing Hungarian and export sales are more important aspects than favourable values over time in relation to capital structure and liquidity indicators.

To test liquidity, the conventional current ratio and quick ratio values have been used, and the operating cash flow ratio has been examined against short-term liabilities (Rózsa, 2014; Katits–Szalka, 2015; Becsky–Droppa, 2015).

For the estimation of the return on equity and the equity risk premium, the international results of ROE studies (Herrmann, 2008; Droj, 2015; Spicka, 2015) and the Hungarian data sets for the risk-free rate have been used. Our research is primarily of descriptive nature, and the analysis of trends in the equity risk premium has been completed with the examination of mean and standard deviation values (Tarnóczi–Fenyves, 2017).

RESULTS OF THE RESEARCH

Based on the combined examination of the values and ratios of liabilities, the companies carrying funding risks were identified. Thereafter, the internal structures of liabilities were analyzed in order to indicate the gearing ratios that mean real financing risks. Table 9 shows the debt ratio values of the sample companies over time. Businesses that seem to be risky based on changes in the percentage ratios and values for liabilities: Bunge, Hungary-Meat, Hungrana, Master Good, Nestlé, Pick, Scitec, as well as Coca-Cola with respect to the last two years.

For the sample companies, it is important to examine whether the internal structure of liabilities is dominated by credits or payables to affiliated companies.

More than 80% of Bunge's all liabilities has been outstanding to an entity listed under the heading of other participations, while the remaining less than 20% is associated with suppliers, and the company has no credits.

Hungary-Meat's liabilities consist of short-term credits and trade payables in equal proportions. From the level of HUF 5 billion, the value of short-term credits had doubled by 2014, during the years under review. It is in fact a value that exceeded 60% of the total amount of liabilities at that time. The company managed the associated liability-related risks by converting the so far short-term credits into long-term facilities in 2015, and consequently a 65% long-term credit ratio appeared, while the remaining amount represented trade payables at this company, too. It means that this company witnessed the emergence of credit-based financing and the related financial risks.

A major part of Hungrana's liabilities belong to debts towards affiliated entities and trade payables. Besides, the amount of its credits is negligible. Therefore, the company's liability structure can be regarded as secure.

In line with the steady growth of its sales revenues and increase in the value of assets, Master Good consistently increases the value of credit-related liabilities in order to satisfy its funding demands. By 2015, the value of credits has exceeded HUF 5 billion. Additionally, the company also has liabilities to an affiliated entity in an amount over HUF 1 billion. The expanding operations are accompanied by a consistently increasing value of trade payables. In the case of Master Good, real financing risks can be measured (50% gearing ratio within the total amount of liabilities), and for this reason the continuous control of working capital management is required to maintain the leading position.

In the case of Nestlé, from 2010 until 2013 more than half of the liabilities belonged to long-term credits, whereas the other part consisted of trade payables and liabilities against affiliated companies. By 2015, the ratio of credits dropped under 20%, but a large amount of long-term liabilities emerged at the company. Again, the company's standing as a subsidiary confirmed our preliminary assumption: although the ratio of Nestlé's liabilities has reached a critically high level, it does not mean a real financing risk due to its internal composition.

The internal structure of Pick Szeged's liabilities shows massive changes for the period under review. The volume of long-term liabilities was on a steady rise (from the level of HUF 4 billion to HUF 13 billion) where from year to year credits and liabilities to affiliated entities were present to varied extents. The volume of short-term liabilities was larger, but showed a downward trend (from the level of HUF 20 billion to HUF 15 billion).

In relation to its internal composition, it can be claimed that the value of trade payables was nearly constant, the role of short-term credits continuously

decreased, while the value of short-term liabilities to affiliated enterprises tripled, and reached the HUF 6 billion watermark in 2015. In 2015, the capital structure was dominated by trade payables, short-term liabilities to affiliated companies and long-term credits. Long-term credits make up almost half of the total amount of liabilities.

In the last two years under review, Scitec saw the appearance of a 25% long-term gearing rate, which cannot be regarded to be critically high. Besides, the company can be described by an approximately 10% rate of trade payables for every year of the studied time period. A unique feature of Scitec's financing structure is the large volume of deferred liabilities appearing from year to year, and reaching up to HUF 5 billion by 2015.

In the case of Coca-Cola, a considerable part of the high liability rate is also outstanding against affiliated entities, and therefore the high indebtedness ratio characterizing the last two year does not mean actual financing problems.

In summary, it can be ascertained that the majority of sample companies does not carry considerable financing risks in spite of the outstandingly high indebtedness ratios at some of the companies. For all the high liability rates, it has been evidenced that in the case of the foreign-owned subsidiaries (Bunge, Nestlé, Scitec, Coca-Cola) the level of indebtedness is closely associated with liabilities to affiliated enterprises that always appear and represent large values, high ratios. In these cases, unfavourable values are usually brought about by sources of funding provided within the group or by the parent company.

Considerable indebtedness due to credits has been revealed only in two cases (Hungary-Meat and Master Good).

The analysis of liquidity evaluates the changes of the quick ratio and operating cash flow / short-term liabilities over time. The general and quick ratios of the sample companies formulate similar views of the companies (Figure 1).

It can be found that liquidity can be regarded as outstanding or favourable only at a couple of the companies (Scitec, Tolnatej). Nevertheless, the earlier analyses of the capital structure suggest that relatively small values do not represent real financing risks, because in most of the cases the values of these indicators were depressed by capital injections provided by the parent company or within the group. Credit-related financial risks have been identified in two cases: Hungary-Meat and Master Good. Still, even at these companies the quick ratios stand at acceptable values around 1, and were consistently improving in the analyzed period.

The sets of data presented in Figure 2 in relation to the operating cash flow / short-term liabilities reflect more accurate pictures of liquidity. The financial context of the indicator is also deeper, because it relies on cash flow statements in addition to balance sheet figures in order to measure liquidity over the entire time interval. In some cases, figures cannot be presented due to missing data sets: for Bunge, the entire set of data is absent, because no cash flow statements are presented in the annual reports, while for Master Good, Mogyi and Nestlé the first two years of the studied period show the lack of information for the same reason (Figure 2). During the period under review – with just a few exceptions –, the degree of dynamic liquidity at the sample companies arrived at values over 10%, which can be deemed to be proper in theory.

Return on equity is one of those factors that determine the growth rate of corporate profit. With respect to earnings on the shareholder's equity, it is very important information whether the risk-carrying business operation undertaken is suitable for providing the shareholders with extra yields that is proportionate to the operating and financing risks, beyond the risk-free rate.

Furthermore, the DuPont analysis aggregates the effects of the key functional subfields of companies on the return on equity. This is how high profit on equity can originate from a high value of the return on sales, which suggests excellent selling and marketing activities, or appropriate cost management, or the combination of these two. Increased ROE can be induced by an enhanced turnover rate of assets, which means the improvement of production efficiency. On the other hand, the ROE value also increases with the rise of the debt ratio, meaning when the financing risk has an upward trend (Katits–Szalka, 2015).

The ROE indicators of the companies in question are very varied. In some cases, the tendency points upwards, while at other cases it goes to the opposite direction, with outstanding small and large values also emerging.

Our analysis has been completed with the study of values for the risk-free rate in Hungary, in the period of 2010–2015 (Figure 3). The risk premium has been calculated from the difference between ROE and the risk-free rate (Table 10). Our pre-assumption that the individual companies can reach a permanently positive risk premium from year to year cannot be confirmed in every case (Table 10).

In 2015, all the companies included in the sample succeeded in achieving extra earnings over the risk-free rate, and in the same year it was Coca-Cola that realized the highest 49% value of the risk

premium. With the exception of Nestlé and Bonduelle, the risk premiums of all the companies indicated high values over 10%.
Some companies were not able to generate positive risk premiums in each year. The companies in question are Bonduelle, Bunge, Coca-Cola, Fornetti, Gallicoop, Master Good, Nestlé and Pick. It is important to emphasize, however, that even in their cases the risk premium values were not in the positive side only in 1 or 2 years.
On the other hand, in each year of the studied period Hungary-Meat, Hungrana, Mogyi, Scitec, Tolnatej and Zwack could permanently realize positive risk premium values.
Thereafter, the risk premium values were also examined in view of the entire sample, with the use of two distinct methodologies. First, the simple arithmetic mean of the corporate premiums were calculated, and then from the annual aggregated data the annual ROE indicators of the entire sample were established, followed by the annual risk premiums of the sample.
The annual average values for the risk premium were invariably high for all the years except for 2011. In 2011, the annual average value of the risk premium was found to be 0%, meaning that the average ROE corresponded to the risk-free rate. It can also be seen that the changes from year to year resulted in increasing trends in the risk premiums, as well. Established on the basis of the indicators from aggregated data, the values show a similarly upward trend with minor fluctuations, whereas the annual values are positive throughout the period (Figure 4).

CONCLUSIONS

In our research hypothesis, we have assumed that the leading positions of the sample companies reflected in their sales revenues and profit figures are accompanied by secure capital structures (low gearing), steady liquidity and relatively high returns on equity. With respect to the return on shareholder's equity, it has been tested whether in the studied time interval the companies in the sample proved to be able to achieve permanent risk premiums from year to year.
It has been assumed that the examined companies can be described with such a series of values for the return on equity that ensures the realization of permanent, excess earnings over the risk-free rate in the analyzed period for the shareholders.
Low gearing ratios have been clearly evidenced. There have been only two companies where considerable external debts could be found, in all the other cases the high debt ratios have been caused by the provision of capital funds by the parent company or within the group. The same reasons explain the changes in the balance sheet-based liquidity values over time.
The hypothesis concerning the equity risk premium could be confirmed separately for the individual companies just with certain limitations, yet for the sample as a whole it has been evident both based on the mean values of indicators and in view of the annual risk premium values calculated from the aggregated data.

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Appendices

Table 1.
Figures describing Hungarian food industry in 2009 and 2014

	In 2009	In 2014
Gross production value	HUF 2070 billion	HUF 2615 billion
Number of companies	8322	12,463
With fewer than 10 employees	80%	86%
Number of employees	96.4 th pers.	91.9 th pers.
Per capita food consumption/total expenses (households)	23%	23%

Source: Own calculation based on the ÉFOSZ (FHFI) 2009, 2016 data

Table 2.
Share of food industry

	Share of food industry (%)			
	From employment	From the generation of gross domestic product (GDP)	From the generation of gross added value	From investments
2003	3.9	2.7	3.2	3.6
2004	3.6	2.4	2.8	3.7
2005	3.6	2.2	2.6	3.6
2006	3.6	2.1	2.5	3.1
2007	3.4	2	2.3	3.2
2008	3.3	1.9	2.1	2.5
2009	3.5	2.1	-	2.5
2010	2.3	2.0	3.3	2.2
2011	2.2	1.8	3.2	2.5
2012	2.1	1.8	3.2	2.5
2013	2.2	1.9	3.3	2.6
2014	-	-	3.5	2.9

Source: Own calculation based on the ÉFOSZ (FHFI) 2009, 2016 data and KSH (HCSO) 2014 data

Table 3.
Key figures for Hungarian food industry businesses based on enterprise size

	Micro		Small		Medium-sized		Large	
	2011	2015	2011	2015	2011	2015	2011	2015
Number of companies	3720	3789	1053	1019	291	293	78	97
Share capital (million HUF)	23,688	29,718	42,129	44,572	63,202	62,018	147,144	131,467
Revenue (million HUF)	120,289	116,081	421,372	424,892	895,627	1,064,089	1,709,961	1,845,026
Export ratio	0.10	0.08	0.16	0.17	0.28	0.32	0.34	0.42
Debt ratio	0.67	0.57	0.58	0.48	0.60	0.55	0.62	0.58
Current ratio	1.08	1.16	1.19	1.44	1.06	1.40	1.13	1.35
ROA	-0.01	-0.33	-1.27	4.13	3.08	5.30	1.61	5.29
ROE	-0.32	-0.85	-3.30	8.82	8.43	12.84	4.80	14.16

Source: Own calculation based on the 2016 data of the Ministry of Agriculture and KSH (HCSO) 2016 data

Table 4.
Key figures for Hungarian food industry businesses based on the form of ownership

	Domestic-owned (100%)		Foreign-owned (100%)		Majority foreign-owned (50–99%)	
	2011	2015	2011	2015	2011	2015
Number of companies	4625	4719	363	357	71	58
Number of employees	63,652	64,295	19,666	18,825	7259	2177
Share capital (million HUF)	96,742	113,003	115,622	114,367	45,436	13,567
Revenue (million HUF)	1,319,287	1,755,522	1,236,102	1,293,812	362,689	82,914
Operating profit (million HUF)	38,922	67,506	30,597	43,372	2766	1595
Profit before tax (million HUF)	23,976	64,655	-1.449	42,380	-3120	1352
Average salary (million HUF/p)	1.53	2.02	3.38	3.92	2.57	2.75
Debt ratio	0.58	0.52	0.65	0.61	0.63	0.53

Source: Own calculation based on the 2016 data of the Ministry of Agriculture

Table 5.
Changes in export sales revenues with respect to the ownership structure, from 2011 to 2015 (HUF million)

	2011	2012	2013	2014	2015
Domestic-owned (100%)	239,379	261,984	424,628	448,655	470,324
Foreign-owned (100%)	492,744	613,782	487,602	615,720	572,731
Majority foreign-owned (50–99%)	123,449	32,458	38,680	42,348	18,908
Other	68,062	102,359	105,531	97,020	133,791

Source: Own calculation based on the 2016 data of the Ministry of Agriculture

Table 6.
Number of the food industry companies included in the Top500 list from 2011 and 2015 (companies)

	Sales revenues	Profit after taxes
2011	32	19
2012	33	21
2013	33	22
2014	43	37
2015	41	34

Source: Own calculation based on the rankings published by Creditreform Kft., 2012–2013–2014–2015–2016

Table 7.
Characteristics of the sample companies: subsector, core activities and form of ownership

	Name of the company	Subsector	Core activity	Form of ownership
1	Bonduelle	canning industry	fruit and vegetable processing, conservation	foreign (French)
2	Bunge	vegetable oil production	oil production	foreign (US)
3	Coca-Cola	production of light drinks and mineral waters	production of light drinks and mineral waters	foreign
4	Fornetti	baking industry	manufacturing of conserved flour products	foreign from 2015 before that Hungarian
5	Gallicoop	meat industry	poultry processing, conservation	Hungarian (85%)
6	Hungary-Meat	meat industry	meat processing, conservation	foreign
7	Hungrana	sugar industry	production of starch products	foreign
8	Master Good	meat industry	poultry processing, conservation	Hungarian (100%)
9	Mogyi	other	other fruit and vegetable processing, conservation	Hungarian (100%)
10	Nestlé Hung.	sugar industry	sweets production	foreign (Dutch)
11	Pick Szeged	meat industry	production of meat and poultry products	Hungarian (100%)
12	Scitec	other	manufacturing of other food products (dietary supplements)	foreign
13	Tolnatej	dairy industry	manufacturing of dairy products	Hungarian (100%)
14	Zwack Unic.	alcohol industry	manufacturing of distilled alcoholic drinks	foreign

Source: Own calculations on the basis of the annual reports of the companies

Table 8.
Leading companies of the previous and subsequent years that are included in both (sales revenues and profit) Top500 ranks

Years	Short names of companies
2011	Bonduelle, Coca-Cola, Gallicoop, Hungary-Meat, Hungrana, Mogyi, Tolnatej, Zwack
2012	Bunge, Coca-Cola, Hungary-Meat, Hungrana, Tolnatej, Zwack
2013	Bunge, Fornetti, Gallicoop, Hungrana, Mogyi, Nestlé, Pick Szeged, Scitec, Tolnatej, Zwack
2015	Bonduelle, Bunge, Fornetti, Coca-Cola, Gallicoop, Hungary-Meat, Hungrana, Master Good, Mogyi, Pick, Scitec, Tolnatej, Zwack

Source: Own compilation based on the rankings published by Creditreform Kft., 2012–2013–2014–2015–2016

Table 9.
Changes in the indebtedness ratios for the companies belonging to the sample in 2010–2015

	2010	2011	2012	2013	2014	2015
Bonduelle	65%	73%	78%	50%	50%	53%
Bunge	70%	86%	73%	73%	71%	75%
Coca-Cola	23%	25%	30%	33%	69%	69%
Fornetti	32%	37%	41%	41%	46%	35%
Gallicoop	49%	51%	52%	41%	42%	38%
Hungary-Meat	73%	73%	71%	88%	77%	70%
Hungrana	35%	44%	41%	35%	36%	39%
Master Good	81%	76%	75%	74%	71%	59%
Mogyi	44%	36%	46%	32%	33%	37%
Nestlé	81%	85%	87%	84%	79%	76%
Pick Szeged	55%	57%	57%	52%	61%	58%
Scitec	75%	69%	98%	71%	74%	66%
Tolnatej	22%	25%	28%	25%	25%	24%
Zwack	31%	25%	20%	50%	37%	34%

Source: Own calculations on the basis of the annual reports of the companies

Table 10.
Changes and standard deviation of the risk premiums of the companies belonging to the sample between 2010 and 2015

Risk premium	2010	2011	2012	2013	2014	2015	*Annual average*	*Standard deviation*
Bonduelle	0%	22%	54%	-9%	-7%	10%	*12%*	*24%*
Bunge	8%	-120%	45%	17%	19%	24%	*-1%*	*60%*
Coca-Cola	5%	4%	-4%	-1%	27%	49%	*13%*	*21%*
Fornetti	1%	-8%	4%	10%	14%	18%	*7%*	*9%*
Gallicoop	12%	14%	-5%	12%	22%	23%	*13%*	*10%*
Hungary-Meat	5%	22%	17%	23%	52%	39%	*26%*	*17%*
Hungrana	47%	49%	60%	60%	51%	37%	*51%*	*9%*
Master Good	36%	-2%	17%	18%	30%	23%	*20%*	*13%*
Mogyi	19%	12%	5%	11%	11%	14%	*12%*	*5%*
Nestlé	-25%	-44%	6%	29%	31%	2%	*0%*	*30%*
Pick Szeged	-5%	-25%	-14%	5%	10%	13%	*-3%*	*15%*
Scitec	20%	36%	426%	119%	3%	36%	*107%*	*161%*
Tolnatej	6%	5%	4%	10%	13%	11%	*8%*	*4%*
Zwack	12%	13%	6%	21%	31%	31%	*19%*	*10%*
Annual average	*12%*	*0%*	*43%*	*22%*	*20%*	*24%*	*20%*	*14%*
Standard deviation	*17%*	*41%*	*112%*	*32%*	*17%*	*13%*		

Source. Own calculations and compilation on the basis of the annual reports of the companies and the relevant data of the National Bank of Hungary (MNB – NBH)

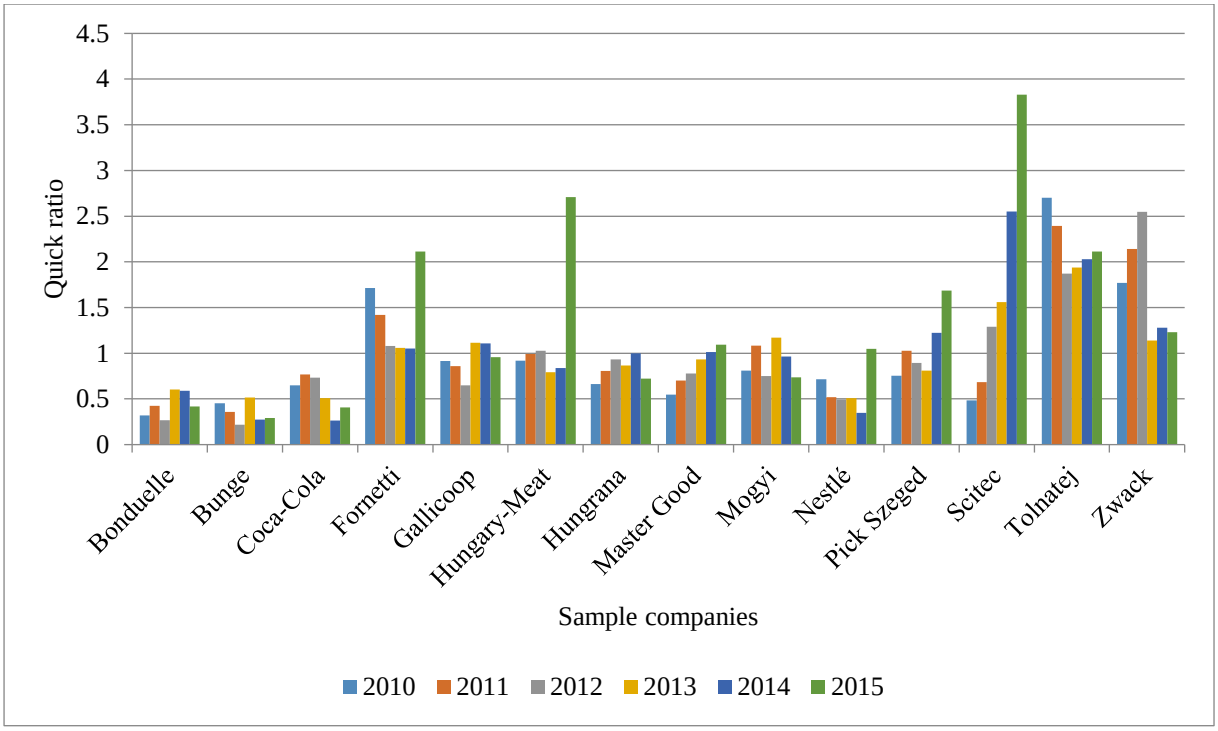

Figure 1. *Changes in the quick ratios of the sample companies in the reviewed period*
Source: Own calculations on the basis of the annual reports of the companies

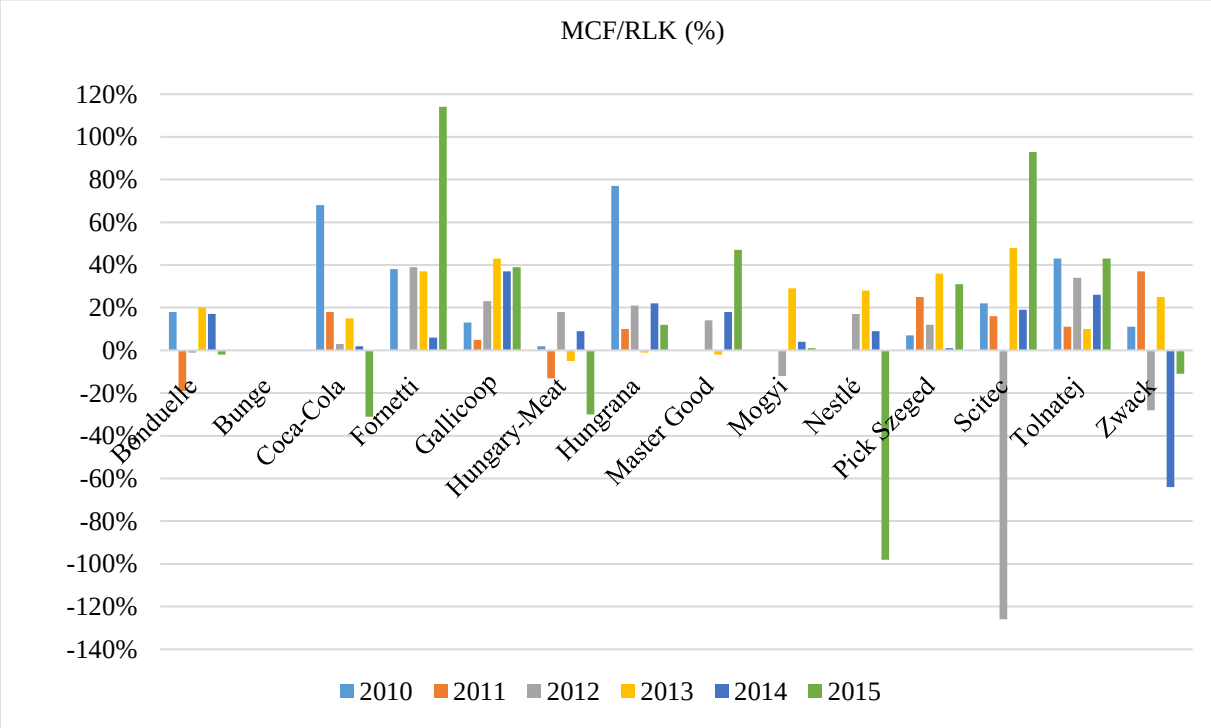

Figure 2. *Changes in the dynamic liquidity degree for the companies belonging to the sample in 2010–2015*
Source: Own calculations on the basis of the annual reports of the companies

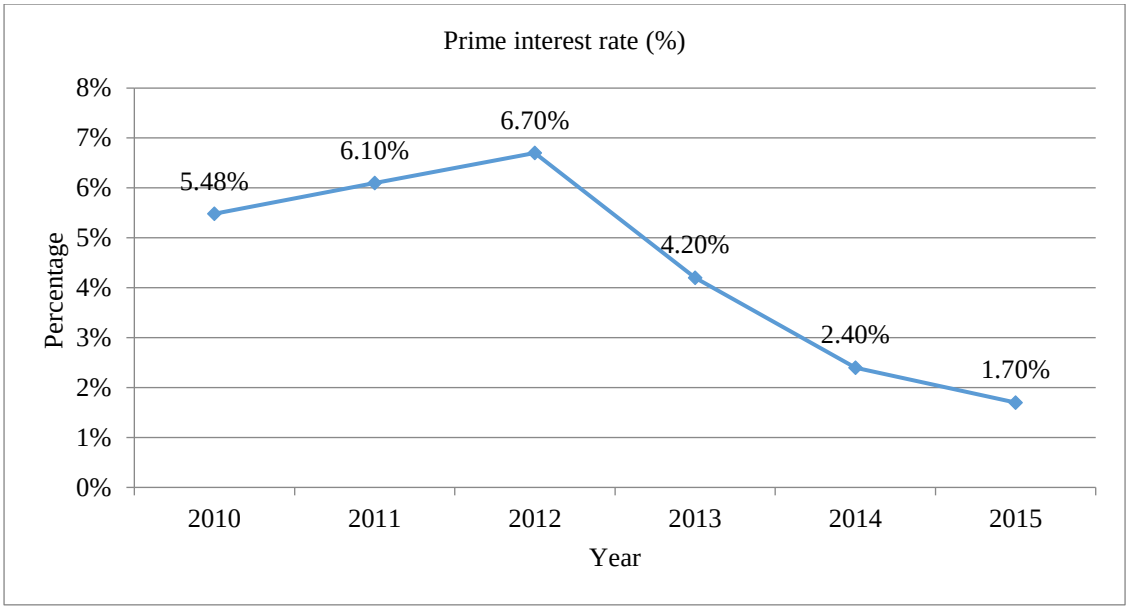

Figure 3. *Changes in the average annual prime interest rate in 2010–2015*
Source. Own calculations on the basis of the data of the National Bank of Hungary (MNB – NBH)

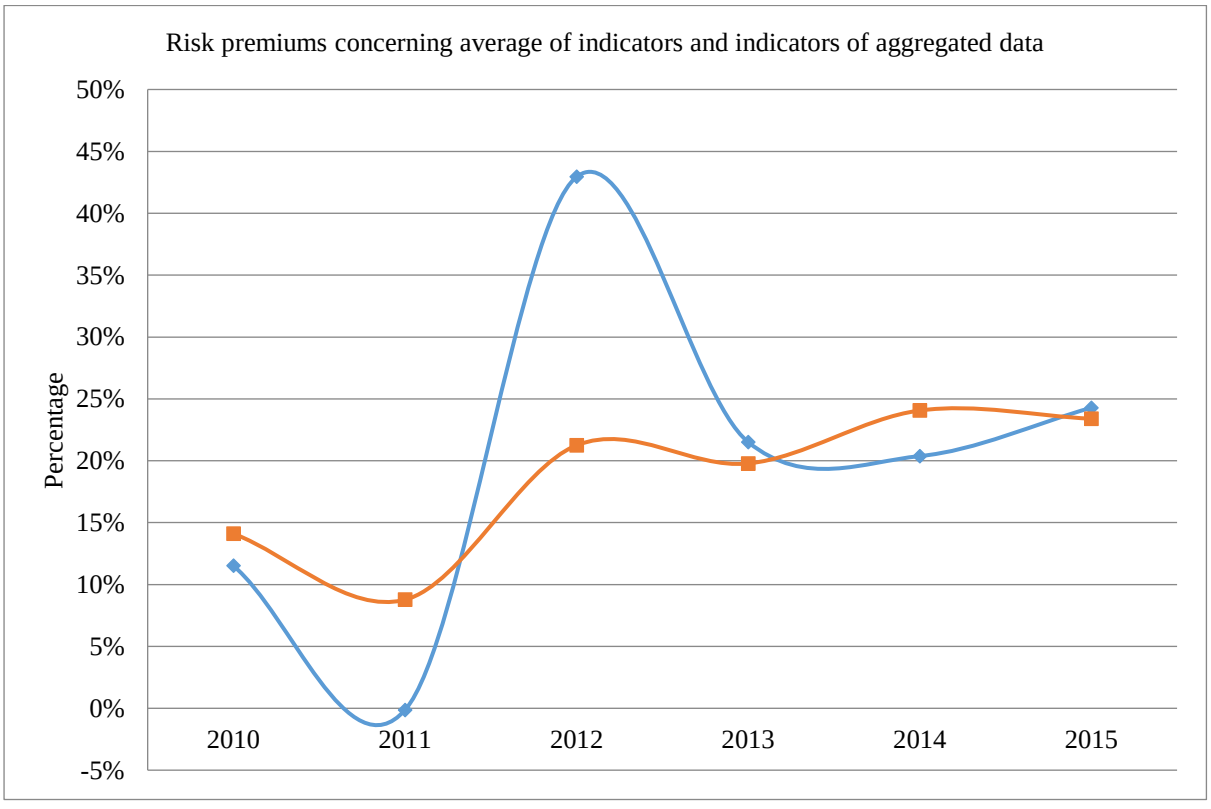

Figure 4. *Risk premium values in the sample*
Source: Own compilation based on own calculations using data of annual reports and NBH