

Analysis of mergers in Czech agricultural companies

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Abstract: Agriculture represents a significant part of the national economy. It secures production of food and influences many related processing industries. Although the volume of agricultural production and its proportion in the gross domestic product has been decreasing, there is a huge interest in increasing the performance of agriculture companies. One of the ways to enhance the company performance, to gain new markets or to achieve cost savings is a merger. Mergers are not very usual in the field of agriculture currently – their proportion in the total number of mergers in the Czech Republic in 2001–2013 was 3.07%. The aim of this paper is to analyse mergers in the field of agriculture. The analysis focuses on the consequences of mergers from the perspective of changes in the financial position and the company performance in the year before the merger and three years after the merger. The analysis proved that the company size (measured by the balance sheet total) decreased as a consequence of mergers and their performance increased.

Key words: agriculture, mergers, economic development of a company, financial position, performance

Agriculture represents a significant part of the national economy. It secures production of food and other products and influences the related processing industries.

Although agriculture is a significant field, the proportion of agricultural production in the gross domestic product is decreasing in developed economies. The Czech Republic has a considerably lower proportion of agriculture in the GDP than the EU-15 countries. The Czech proportion is 0.5%, while the EU-15 average is 1.2%. In the past 14 years, the proportion of agriculture in the GDP in the Czech Republic decreased by 83%, while in the EU-15 countries it only decreased by 29% (Smítal 2012). However, the current EU surveys show that the prestige of agriculture has been on the rise (European Commission 2014) and rural development is expected to be supported (European Commission 2013) in order to gain a competitive and viable agricultural sector.

The drawbacks appearing from the comparison of the Czech agriculture with the EU-15 average (due to the high demands of the EU legislation) are the high indebtedness, the long-term persistence of a lower sale of agricultural production and lower European or national subsidies. Moreover, agricultural companies have a limited access to financing (Janda and Čajka 2006). Social disparities between agricultural workers and other workers in the national economy

are increasing; the attractiveness of agriculture for young and qualified people is decreasing mainly due to the income disparities.

The problems arise also in the financial reporting and evaluating of the performance of agricultural companies. The specifics of agricultural production and the biological transformation connected with that type of production are not taken into account by most of the existing accounting systems (Bohušová et al. 2012). According to Sedláček (2010), in comparison with other economic branches, the agricultural activity is characterized by specific activities that require the appropriate accounting treatment.

All enterprises and companies (not only in agriculture) endeavour to achieve the economic growth. The current economic situation is complicated; the consequences of the economic crisis are still visible and the companies are searching for ways to achieve the growth. One of these is a merger with another company. Mergers are types of legal transformations of business companies and cooperatives. Transformations of business companies are processes in which at least one of the companies is dissolved without going to liquidation and its assets and liabilities are transferred to its legal successor. This can be an existent company or a company newly formed. In exchange for the company with its assets and liabilities, the legal successor gives the owners

of the dissolved company shares or stocks of the successor's capital and equity.

Mergers need to be distinguished from acquisitions (these are often mixed in the literature). An acquisition is a process in which owner's shares or assets of one company pass to another. Acquisitions are of two basic types, property acquisitions and capital acquisitions. In neither case any of the transaction participants is dissolved, as it is the case of a merger. An acquisition mainly refers to a takeover of a company or its part, usually by purchase. There can be various forms, e.g. a purchase of shares or stocks, a purchase of a company or its part, assets, or even a formation of a joint venture.

The Czech legislation distinguishes between a merger while no new company is formed (in which the successor company takes over the dissolving company) and a merger while a new company is formed (in which two or more companies, which are dissolved without going to liquidation, give rise to a new successor company) (Act No. 125/2008 Coll.).

Reasons for mergers can be business-related or speculative. Business reasons include situations when the company aims at a further development so it needs to grow, to change its structure, to expand its share in the market or to find a new market. Speculative reasons include an effort for a maximum appreciation of the capital in a short time, when the gained companies can be gradually sold out. Another significant effect is tax savings (Mařík 1995). Other reasons for mergers include a positive relation between the company size and a higher efficiency (Baldwin and Wyplosz 2006), the need of more negotiation power, or the economies of scope (Bijman et al. 2012), or an increase in the company value when a larger company gains a stronger position in the market and becomes more competitive (Brealey et al. 2006).

The advantages of agricultural companies combinations into larger units provide their members with new or better services, a better utilization of the production equipment and the personnel capacity, the elimination of excessive competition, an increase in the product competitiveness, a decrease in unit costs, etc. (Williamson 1987).

The first place in the implemented mergers is held by production and services (Klub investorů 2013). Agricultural production is among the last ones. Although agriculture thus may appear insignificant in respect of the proportion of the GDP, the volume of production, the total output or the number of employees, its role is irreplaceable and an analysis of agricultural mergers is highly important.

Statistical data concerning mergers and acquisitions in the Czech market are hard to obtain. The trade register of the Czech Republic does not provide the data on the implemented mergers in time series (Sedláček et al. 2011). Counselling agencies do not provide these data. Moreover, in some transactions, these agencies are listed as the counsellors for the purchase, in others for the sale or other types of counselling services related to mergers and acquisitions.

Another difficulty is gaining the data suitable for an international comparison. Publications about the development of agricultural companies do not usually provide information about the company financial position and performance; they concentrate on the volume of production measured by the amount of production (the amount of cereals, meat, milk, etc.) (Bijman et al. 2012; European Commission 2013).

The performance of Slovak agricultural companies, measured by the indicators of profit and added value, has been dealt with by Miklovičová and Gunčík (2009). They concluded that these indicators grew in the monitored periods with some exception. The total profit was significantly affected by the changes in the financial profit or loss. The growth of profit and profitability of Czech agricultural companies has been confirmed by Svoboda and Novotná (2013); they mention subsidies as having a significant effect on the profit or loss.

Another motivation for mergers can be the company size and its position in the market (Hudson and Herndon 2002). Comparing Czech, Slovak and Polish agricultural companies, 93% of companies in the Czech Republic are owned by individuals and these have the production share of 24%, in Slovakia it is 99% of agricultural companies, but they have only 18% production share (Tamáš 2010). Small agricultural companies up to 5 ha in Poland farm around 45% of agricultural land. The trend of the company increase has started to appear – in Poland the size of companies with over 15 ha increased in 2002–2011, probably by the purchase of land, but the content of the transactions has not been specified (Ministry of Agricultural and Rural Development in Poland 2012). Considering that companies of individual owners do not have any great motivation for mergers, the distribution of the company sizes confirms this fact.

MATERIAL AND METHODS

The subject of research was mergers in agricultural companies in the Czech Republic that took place in

2001–2013. First, a database of all companies that merged in the given period¹ and whose business is agricultural production was formed using the data published in the Trade Register. The companies were selected in compliance with the OKEČ² classification – 01 agriculture, hunting and related activities, and 02 Forestry and related activities.

The subsequent analysis dealt with the financial statements of merging and merged companies and focused on their financial position and performance in the year of merger and in the following three years. For this reason, the input database was limited to the mergers that took place in 2001–2009, so that their data three years after the merger were available.

The information about the financial position of a company is provided in the Balance Sheet (or the statement of financial position), the information about the performance in the Profit and Loss Statement. The following were selected from the financial statements of the companies and analysed:

- total assets;
- equity;
- earnings after taxes;
- added value;
- labour costs;
- operating profit or loss.

The total assets express the value of the total company property. It has to be considered that these are historical prices. A typical feature of assets is that they represent a future economic benefit and are a result of past transactions. It is important to measure assets correctly.

The equity is the remaining share of assets after the liabilities are deducted, or in other words, net assets. The equity expresses the property essence of a company from the perspective of its own sources of finance.

Added value, operating profit or loss and earnings after taxes are the indicators of performance. The added value comprises the revenues and costs directly related to the sale of goods and products as well as the provision of services; the operating profit or loss represents the total revenues and costs related to the operation, i.e. the main business activity of the

company; the earnings after taxes represent the total result of the company economy reduced by the tax, i.e. the profit or loss that the company has available for a further distribution.

Due to the small number of the companies that published their data (see below), the available data were only compared in time series.

RESULTS AND DISCUSSION

The data published in the Trade Register showed that there were 4853 mergers in 2001–2013, out of which 149, i.e. 3.07 % were mergers of agricultural companies. Table 1 shows the mergers in the individual years.

Table 1 shows that agricultural companies merged to a minimum extent in 2001–2005; a slight increase

Table 1. Development of number of mergers in 2001–2013

Year	Number of mergers		Proportion of agricultural companies in the total number of mergers (%)
	in total	of agricultural companies	
2001	69	5	7.24
2002	142	5	3.52
2003	249	7	2.81
2004	185	4	2.16
2005	135	3	2.22
2006	300	12	4
2007	320	9	2.81
2008	429	15	3.49
2009	415	15	3.61
2010	432	20	4.63
2011	650	17	2.62
2012	665	17	2.56
2013*	862	20	2.32
Total	4 853	149	3.07

*the data of 2013 are not complete yet because not all mergers have been published

Source: Author based on data in the Trade Register of the Czech Republic

¹The research only focuses on the companies which performed a merger in compliance with the Act No. 125/2008 Col. on transformations of business companies. It does not deal with acquisitions that represent a takeover of a company or its part, usually by purchase.

²This classification was in use until 31. 03. 2009; since 01. 04. 2009 it has been replaced by the CZ-NACE in line with the harmonization of our legislation with the European legislation. The abbreviation, NACE, stands for the French title “Nomenclature générale des Activités économiques dans les Communautés Européennes”.

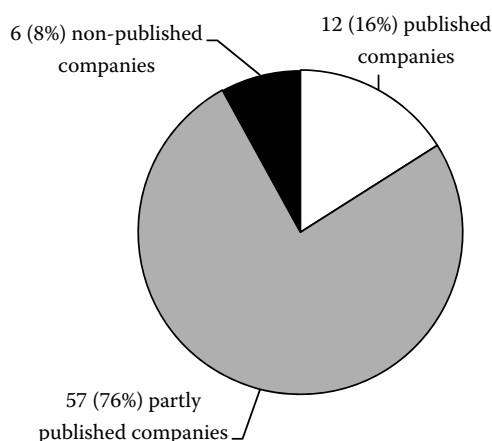


Figure 1. The ratio of companies that have published and have not published the demanded data

Source: Author based on data in the Trade Register of the Czech Republic

came after 2006. This trend is similar in the total number of mergers.

We came across a significant problem when analysing the data from the Trade Register. The majority of companies do not meet their duty to publish financial statements in the Trade Register – we were only able to gain complete data for 12 companies out of the total number of 75, i.e. only 16%. The other companies either have not published the data at all (6 companies, 8%), or only partially – some of the analysed years are missing (57 companies, 76%). This information may differ with time; some companies add the data in the Trade Register subsequently. The comparison of the number of companies that have published the data and the companies that have not is presented in Figure 1.

Out of the total number of 12 companies that have published their data, 4 companies implemented a merger in 2001, 4 companies in 2002, 1 company in 2004, and 3 companies in 2007. The data for the remaining years are not available (Table 2).

Table 3. Value of the total assets in thousands CZK

Year of merger	As of merger date	After merger		
		1 st year	2 nd year	3 rd year
2001	1 191 378	1 059 283	994 695	991 297
2002	3 127 152	670 353	628 345	587 303
2004	260 302	226 067	218 238	227 296
2007	1 616 660	1 626 253	1 609 122	483 833
Total	6 195 492	3 581 956	3 450 400	2 289 729

Source: Author based on data in the Trade Register of the Czech Republic

Table 2. Number of companies that published their financial statements

Year of merger	Number of companies
2001	4
2002	4
2003	X
2004	1
2005	X
2006	X
2007	3
2008	X
2009	X
Total	12

Source: Author based on data in the Trade Register of the Czech Republic

The basic aim of business of each company generally is to increase its market value in the long-term horizon. The energy which allows business to be done (company activities) is capital. From a purely financial point of view, a company can be seen as a money machine where the invested capital is gradually transformed during the production process into various assets the final demanded form of which is money (new capital). Financial statements provide the initial economic data to evaluate the company (2013).

Total assets express the size of the company possessions which serve for increasing the future economic profit of the company. They represent a sum of the long-term assets and current assets, which are used to ensure the company activities. The values of the total assets are presented in Table 3. The found data show that the value of assets decreased in the years after the mergers.

Equity is the share of the company assets remaining after the debts are deducted. It expresses the value

Table 4. Value of equity in thousands CZK

Year of merger	As of merger date	After merger		
		1 st year	2 nd year	3 rd year
2001	434 320	406 665	338 677	337 729
2002	2 787 192	435 357	403 937	411 038
2004	186 407	139 125	151 981	171 786
2007	1 480 571	1 526 246	1 522 587	383 450
Total	4 888 490	2 507 393	2 417 182	1 304 003

Source: Author based on data in the Trade Register of the Czech Republic

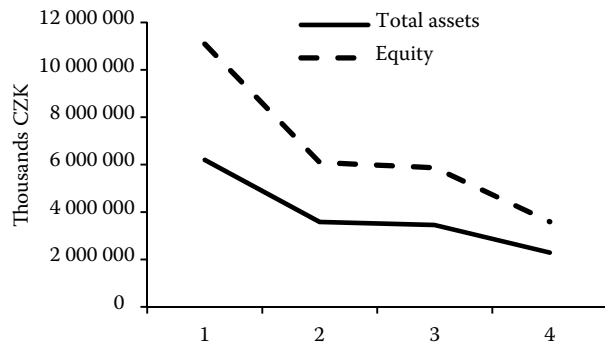


Figure 2. Development of the total assets and the equity

Legend for x axis: 1 = data for the date of merger, 2 = data for the first year after merger, 3 = data for the second year after merger, 4 = data for the third year after merger

Source: Author based on data in the Trade Register of the Czech Republic

of the net business property, i.e. the assets that are financed from the company own sources. The values of equity are presented in Table 4. It shows that this value decreases in the years after mergers.

The relationship between the total assets and equity is presented in Figure 2.

Total assets and equity in the years after the merger decreased when compared to the day of the merger. The decrease may be caused by e.g. the reclassification of assets and a sale of the redundant property. Another cause may be the current trend in the field of agriculture – the activities of agriculture companies are being gradually reduced. Companies may even go smaller due to the fact they have not been able to meet the original aims of the merger. The total assets and the equity decrease proportionally, the proportion of the owned and loaned resources is not changing – the indebtedness of the companies is not increasing.

Profit or loss is a measure of the company performance. It expresses the relationship between the rev-

Table 5. Value of earnings after taxes in thousands CZK

Year of merger	As of merger date	After merger		
		1 st year	2 nd year	3 rd year
2001	43 771	–13 854	18 141	23 322
2002	–12 109	5 276	–2 483	9 009
2004	4 704	3 414	14 268	20 707
2007	1 913	44 351	–3 216	–7 567
Total	38 279	39 187	26 710	45 471

Source: Author based on data in the Trade Register of the Czech Republic

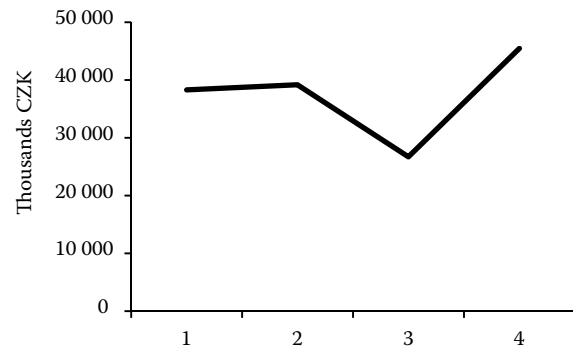


Figure 3. Development of earnings after taxes

Legend for x axis: 1 = data for the date of merger, 2 = data for the first year after merger, 3 = data for the second year after merger, 4 = data for the third year after merger

Source: Author based on data in the Trade Register of the Czech Republic

enues and expenditures during the accounting period. Earnings after taxes are a basis for the creation of funds and the distribution among owners. They are also a basis for the calculation of other indicators. The values are presented in Table 5 and Figure 3. In general, the value fluctuated. After a slight increase in the first year after the merger, there is a considerable slump in the second year and another increase in the third year.

To clarify the reasons for the earnings fluctuation, we conducted the analysis of the development of the added value, see Table 6. The results show that the development of earnings after taxes was considerably affected by the development of the revenues and expenses in the field of the product sale and the service provision.

When compared with Figure 4 and Table 5, we can see that the development of the added value follows the development of earnings after taxes.

Labour costs are an important item in the operating costs of a company. The wages, remunerations and their correct application are important factors affecting the company economy. The development of labour costs is presented in Table 7 and Figure 5.

Table 6. Development of the added value in thousands CZK

	As of merger date	After merger		
		1 st year	2 nd year	3 rd year
Added value in total	418 180	482 176	270 086	406 207

Source: Author based on data in Trade Register of Czech Republic

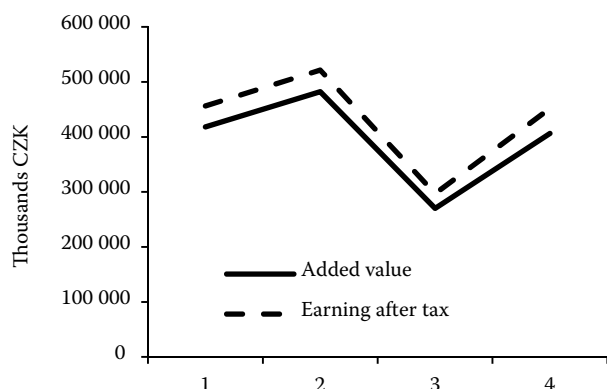


Figure 4. The relation between the added value and earnings after taxes

Legend for x axis: 1 = data for the date of merger, 2 = data for the first year after merger, 3 = data for the second year after merger, 4 = data for the third year after merger

Source: Author based on data in the Trade Register of the Czech Republic

After a decrease in labour costs in the first year after the merger, which was probably caused by a lower number of workers as a consequence of the company reduction (Table 3), there was a slight increase during the following years.

The operating profit or loss illustrates the performance of the company in relation to its main activity, the subject of its business. It contains revenues and expenditures related to the purchase and sale of goods, the provision of services, including other related items such as depreciations, labour costs, etc. The development of the operating profit or loss is presented in Table 8 and Figure 6.

The comparison of the development of the operating profit or loss and the earnings after taxes is presented in Figure 7.

The comparison of the operating profit or loss and the earnings after taxes shows that these indicators

Table 7. Labour costs in thousands CZK

Year of merger	As of merger date	After merger		
		1 st year	2 nd year	3 rd year
2001	211 727	42 705	87 875	77 073
2002	102 989	100 067	99 933	96 862
2004	23 439	39 739	42 121	44 664
2007	81 185	88 552	93 601	85 609
Total	419 340	271 063	323 530	304 208

Source: Author based on data in the Trade Register of the Czech Republic

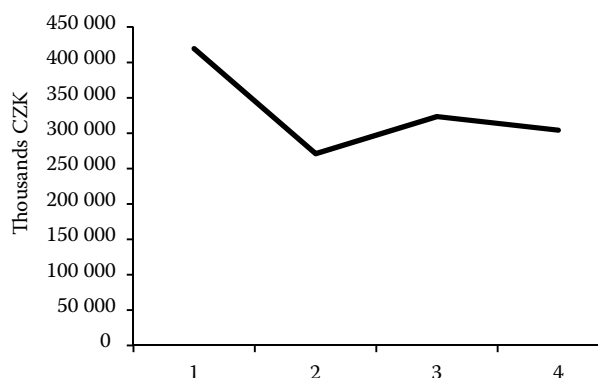


Figure 5. The development of labour costs

Legend for x axis: 1 = data for the date of merger, 2 = data for the first year after merger, 3 = data for the second year after merger, 4 = data for the third year after merger

Source: Author based on data in the Trade Register of the Czech Republic

developed similarly. It means that the predominant part of the profit or loss of companies is created within the operating area; the financial and extraordinary profits or losses do not have a significant effect on the total result.

CONCLUSIONS

Agriculture represents a significant field of economy that secures production of food and creates inputs for other processing industries. It is a highly specific field as its production has a biological character – it is dependent on seasons and weather fluctuations, to an extent it cannot be influenced by humans. The volume of agricultural production is not significant as regards the size or the number of companies. The

Table 8. Value of the operating profit or loss in thousands CZK

Year of merger	As of merger date	After merger		
		1 st year	2 nd year	3 rd year
2001	59 823	–13 340	39 293	34 705
2002	–6 945	8 055	–4 971	–2 118
2004	5 517	7 177	15 043	25 152
2007	8 942	59 885	–4 016	–11 165
Total	67 337	61 777	45 349	46 574

Source: Author based on data in the Trade Register of the Czech Republic

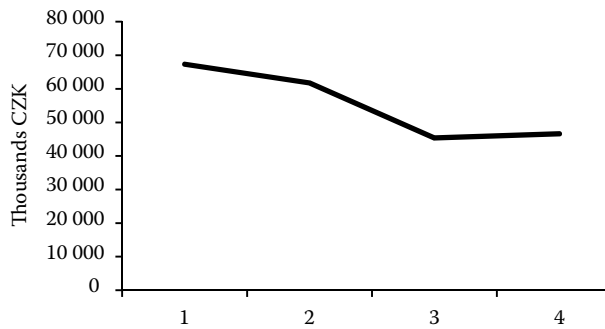


Figure 6. The development of the operating profit or loss

Source: Author based on data in the Trade Register of the Czech Republic

proportion of agriculture in the total volume of the national economy and the GDP in the Czech Republic has decreased in the last 14 years and currently it is 0.5%. In spite of this, agricultural companies endeavour to enhance their performance, to increase their market share and to reduce costs. One of the ways to achieve these is a merger. Due to the specifics of the field, the number of mergers is very low. The data cannot be really compared with the total number of mergers (mergers of agriculture companies only form 3.07%).

A significant impediment of the analysis evaluation is the fact that only 12 companies, i.e. 16% out of the total of 75 researched companies, have published the demanded information from financial statements fully and correctly. This fact may change with time as some companies add the data later. Due to the small number of the companies that could enter the analysis, the modern statistical methods could not be used.

In spite of the small number of companies and the lack of data, such an analysis and evaluation of mergers are important, even though they are limited. The analysis has confirmed a decreasing value of the assets and equity in the years after mergers; it means that the companies were reduced. In agreement with the total assets, the equity decreased – the ratio of the owned and loaned resources did not change considerably and the companies did not increase their debts. The earnings after taxes fluctuated and developed similarly to the added value and the operating profit or loss. It means that a predominant part of the revenues and expenditures of the companies were created in the operating field and were related to the main business of the companies.

The analysed agricultural companies are from the categories of small and medium-sized enterprises.

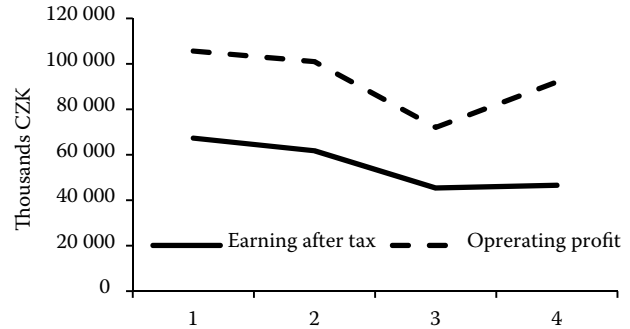


Figure 7. The comparison of the operating profit or loss and the earnings after taxes

Source: Author based on data in the Trade Register of the Czech Republic

Compared to the assets in small and medium-sized enterprises in all fields of the economy, the companies in general grew (Valouch et al. 2012), while the agricultural companies diminished. The decreasing agricultural companies' size and their increased performance may be related to subsidies, as stated by Svoboda and Novotná (2013), or a better utilization of the production capacity and the cost reductions (Williamson 1987).

An international comparison in this field is not possible, as it has been mentioned in the introduction, as there are no suitable sources for the analysis.

These results may have various reasons. They are definitely affected by the small number of the sample, 12 companies cannot provide relevant information. The results can also be distorted by the measuring of assets in agricultural companies as their specific nature may influence the measurement precision. The Act on Accounting or the related regulations do not deal with the measurement of biological assets in detail. For example, the evaluation of land and permanent crops depends on the market value set by an expert. Also the evaluation of animals and plants gained through the company own production may not be completely precise. The last reason may be the fact that agricultural companies have such a special position and subject of business that they cannot be compared with other fields.

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REFERENCES

- Act No. 125/2008 Coll., on transformations of trading companies and cooperatives. (Zákon o přeměnách obchodních společností.) Ministry of Justice CR, Prague.
- Baldwin R., Wyplosz C. (2006): *The Economics of European Integration*. 2nd ed. Mateu Cromo, Madrid; ISBN 10: 0-077-111192.
- Bijman J., Iliopoulos C., Poppe K.J., Gijselinckx C., Hagedorn K., Hanisch M., Hendrikse G.W.J., Kühl R., Ollila P., Pyykkönen P., van der Sangen G. (2012): *Support for Farmers' Cooperatives*. Final Report European Commission. Available at http://ec.europa.eu/agriculture/external-studies/2012/support-farmers-coop/fulltext_en.pdf
- Bohušová H., Svoboda P., Nerudová D. (2012): Biological assets reporting: Is the increase in value caused by the biological transformation revenue? *Agricultural Economics – Czech*, 58: 520–532.
- Brealey R.A., Myers S.C., Allen F. (2006): *Principles of Corporate Finance*. 8th ed. McGraw-Hill, Boston; ISBN 0-07-295723-9.
- European Commission (2013): *Overview of CAP Reform 2014–2020*. Available at http://ec.europa.eu/agriculture/policy-perspectives/policy-briefs/05_en.pdf
- European Commission (2014): *Eurobarometer survey finds broad support among Europeans for new CAP content*. Available at http://europa.eu/rapid/press-release_IP-14-227_en.htm
- Hudson D., Herndon C.V. (2002): Factors influencing probability and frequency of participation in merger and partnership activity in agricultural cooperatives. *Agribusiness*, 18: 231–246.
- Janda K., Čajka M. (2006): *Comparison of the Development of Czech and Slovak Institutions in the Field of Agriculture Finances*. (Srovnání vývoje českých a slovenských institucí v oblasti zemědělských financí.) Prague Social Science Studies. Charles University in Prague; ISSN 1801-5999.
- Klub investorů (2013): *Market with mergers and acquisition is coming alive*. (Trh fúzí a akvizic v ČR ožívá.) Available at <http://www.klubinvestoru.com/cs/article/1749-trh-fuzi-a-akvizici-v-cr-oziva>
- Mařík M. (1995): *Koupě podniku jako součást podnikové strategie: akvizice a fúze podniků*. (Company purchase as a part of company strategy: acquisitions and mergers.). 1st ed. VŠE, Praha.
- Miklovičová J., Gurčík L. (2009): The profit and added value creation and development analysis of agricultural companies in selected regions in Slovakia. *Agricultural Economics – Czech*, 55: 392–399.
- Ministry of Agricultural and Rural Development in Poland (2012): *Agriculture and Rural Economy in Poland*. Available at www.bip.minrol.gov.pl
- Sedláček J. (2010): The methods of valuation in agricultural accounting. *Agricultural Economics – Czech*, 56: 59–66.
- Sedláček J., Valouch P., Konečný A. (2013): Synergic motives and economic success of mergers of Czech companies. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 61: 2721–2727.
- Sedláček J., Valouch P., Konečný A. (2011): Analysis of merger and acquisition development in the Czech Republic in 2001–2010. In: 8th International Scientific Conference on Financial Management of Firms and Financial Institutions. VŠB-TU EkF, Ostrava, pp. 384–395.
- Smítal F. (2012): Lidé nakupují stále méně potravin. Informace Zemědělského svazu ČR. (People buy less and less food. Information from the Agricultural Union of the CR.) Available at <http://www.agrovenkov.cz/service.asp?act=print&val=120191>
- Svoboda J., Novotná M. (2013): Vývoj výsledku hospodaření a rentability zemědělských podniků. (The development of profit and loss and profitability of agriculture companies.) In International Scientific Conference INPRO-FORUM 2013. University of South Bohemia in České Budějovice, Czech Republic, pp. 279–285.
- Tamáš V. (2010): Problém duální struktury zemědělských podniků v Evropských tranzitních ekonomikách. (The issue of dual structure of agriculture companies in European transition economies.) *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 57: 571–576.
- Valouch P., Králová M. (2012): Influence of a merger on the value of assets of merged companies in the Czech Republic. In: *European Financial Systems 2012*. Masaryk University, Brno, pp. 226–231.
- Williamson L. (1987): *The Farmer's Cooperative Yardstick: Cooperative Mergers, Acquisitions and Other Forms of Restructuring*. College of Agriculture Extension Publication No. AEC-58. Department of Agricultural Economics, University of Kentucky. Available at <http://www.uky.edu/Ag/AgEcon/>

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