Mendel
University
in Brno

MENDELU Working Papers
in Business and Economics
33/2013

The agricultural companies and their value spread within the Visegrad Group

Kamila Ruzickova

MENDELU Working Papers in Business and Economics
Research Centre
Faculty of Business and Economics
Mendel University in Brno
Zemědělská 1, 613 00 Brno
Czech Republic
http://vyzc.pef.mendelu.cz/en
+420 545 132 605

Citation

Ruzickova, K. (2013). The agricultural companies and their value spread within the Visegrad Group. *MENDELU Working Papers in Business and Economics* 33/2013. Mendel University in Brno. Cited from: http://ideas.repec.org/s/men/wpaper.html

Abstract

Kamila Ruzickova: **The agricultural companies and their value spread within the Visegrad Group**

This paper closely examines theoretical and practical aspects for the initial stage for the application of the income valuation methods on the agricultural companies within the member countries of the Visegrad Group. Firstly, the applicability of the income valuation methods is verified via the value spread, as a difference between the return on equity and costs of equity and secondly, the conclusions are drawn properly. This paper finds that only a part of the sample is suitable for income valuation, for the majority of companies the income valuation methods are rather non-applicable, due the fact that some of the basic requirements are not met. Based on empirical tests, it was proved that there is a slightly positive dependence between the value spread and the country of origin of the agricultural company.

Key words

Agricultural company, company value, net income, value spread

JEL: G32, Q13

Contacts

Kamila Ruzickova, Department of Business Economics, Faculty of Business and Economics, Mendel university in Brno, Zemědělská 1, 613 00 Brno, Czech Republic, e-mail: kamila.ruzickova@mendelu.cz.

Introduction

Companies worldwide are adjusting their economic behaviour in response to globalization affecting current business environment. Their management strategies need to be built on assumption that economic benefits created within the company are higher than the consumption of company's resources. Moreover, these potential benefits are in focal area due their close connection with company value creation, since it is important to generate a profit not only in the short-term, but also in the long-term. According to the valid legislative, the primary purpose of companies is to generate a profit, either to be distributed to the owners, or reinvested in the company for any future development (Brealey, Myers and Marcus, 2007). On the other hand, the issues of company value maximization have come into the focus, especially due the fact that the perspective of creation value for the owners has become the major company objective (Robbins, Judge, 2007; Hill, Jones, 2009).

A large body of literature has explored the magnitude of company value measurement by various methods based on the net present value principle (Damodaran, 2007; Koller, et al. 2010; Plenborg, 2002). This principle applied on company valuation is derived from the dividend discount model (DDM) originally employed for valuation of stocks (Brealey, Myers and Marcus, 2007). Despite the broad use of the income valuation methods, their applicability is closely connected with the company's future perspective, so called going concern principle. If it cannot be assumed that a company remains viable and active in the future, the income valuation methods are not applicable. The overall process of company valuation via the income valuation methods is rather complex and extensive including various sub-calculations. Therefore, it might be useful to know in advance, whether the income method requirements are met and thus the method is applicable for a specific company (valuation object). These requirements are:

- the going concern principle, as mentioned above,
- the continuous competitiveness of a company,
- the growth potential of the industry and
- the ability of a company to meet its liabilities in due time.

The going concern principle is met if the positive cash flow can be expected in the long term (Mařík, 2007). There is a possibility to examine the fulfilment of some of these requirements via so called value spread (Cassia and Vismara, 2009; Mařík, 2007). The value spread is a difference between return on equity and costs of equity and serves as a basis for economic value added (EVA) calculation (Dluhošová, 2004):

$$EVA = (ROE - r_e) * E, \quad (1)$$

where EVA is the economic value added, ROE is the return on equity, r_e is the costs of equity and E is the equity. Besides, the value spread can be also found within the model of residual income (RI) valuation, also known as the Edwards-Bell-Ohlson (EBO) model. The empirical usefulness of residual income valuation model (RIVM) was discovered for example by Lee et al. (1999, cited in Mishra and O'Brien, 2005), or by Skogsvik (2002), Bild et al. (2002), Landsman et al. (2006), Stubelj, et al. (2009), and Elsner et al. (2012); however, Plenborg (2002) expresses the RI approach in terms of financial ratios, as:

$$P_0 = BV_0 + \sum_{t=1}^{\infty} \frac{(ROE_t - r_e)BV_{t-1}}{(1 + r_e)^t}, \quad (2)$$

where *P* is the firm value, *BV* the book value of equity, *ROE* the return on equity, and r_e the cost of capital (equity holder). The RI is defined as the difference between ROE and r_e, known as the value spread, multiplied by the BV (Plenborg, 2002).

Therefore, the value spread is a direct verification tool for the applicability of the income valuation methods (both EVA and RI). Any value creation in a company is closely related to the relation between the rates of return obtained (ROE) and expected (r_e) (Mařík, 2007). The individual profitability ratios do not measure the company's success nor reflect the factor of risk. However, if ROE indicator is compared to the opportunity costs, it provides the information about company's overall financial situation. The success or failure can be easily identified based on the size of the value spread: by how many per cent is the return on equity higher/lower than the costs of equity. In order to provide the information in monetary units, the difference can be multiplied by the equity. The multiplication of the value spread by the shareholders' equity means the economic profit generated within the year by the company (Neumaierová, 2005). The limitation of this spread lies in its historical nature, since it measures only historical parameters and cannot provide predictive perspective (Vavřina and Růžičková, 2012).

In this paper, the value spread criterion is challenged by the traditional economic tool: the book profit/loss, i.e. earnings after taxation (EAT). Even though this indicator is still widely used and connotes the overall economic prosperity of a company, its validity as economic performance indicator is rather arguable. EAT of a company are calculated as the sum of all relevant expenses deducted from sales realized. The important part from the expenses is created by costs of goods sold (COGS). EAT can be considered as net income (NI) or profit/loss for the year. To have a positive EAT

does not necessarily mean showing adequate economic performance, not only due to the different accounting policies, but also due to the extraordinary company activities (Kislingerová, 2001). In addition, EAT provides only the information from the current year, and uses nominal or historical prices. Therefore, it is easily interpreted and easily accessible from the publicly issued financial statements of a company. Companies can be also compared based on EAT, however, there is a need for respective system of peer group clustering according to for example range of economic activities, provided services and total economic size of all participants via employing relevant indicator (Vavřina and Růžičková, 2012).

It can be easily assumed that a company generating profit surely creates the value for its owners and vice versa, company with a loss will definitely destroy its value. It does not have to be the case. There can be companies whose net income can be shielded by various factors and therefore cannot provide the indication about the value creation.

This paper contains an investigation of whether or not agricultural companies from member countries of the Visegrad group (V4) create value using the value spread between company's return of equity and costs of equity. Moreover, the value spread is challenged by the net income of these companies. Finally, the independence of the value spread and country of origin of the agricultural company is verified via the Chi-square test of independence, and if the dependence is detected, the Cramer's V coefficient is employed. The following hypothesis is tested:

H_0: Creating/destroying value according to the value spread method does not depend on the country of origin of the agricultural company within the observed sample.

The objective of this paper is to examine the dependence between the value spread and the country of origin of the agricultural company. The findings of this paper may be used for the process of company valuation, namely for pre-selection of suitable valuation objects, since the income valuation methods cannot be applied widely. Moreover, the findings may also discover potential differences between the sample companies from the V4 countries. These differences can stem from the different political systems, public subsidy policies, climatic zones, or geographical location.

The paper is structured as follows. Firstly, the currently used methods and data sample are introduced. Secondly, results and their discussion challenged by the current literature are provided and finally, conclusions based on the main findings are summarized. List of references constitutes an integral part of this paper.

1 Currently used methods

The sample used in this paper consists of all active agricultural companies from the V4 member countries (Czech Republic, Poland, Slovakia and Hungary) listed in the database Amadeus of Bureau van Dijk (Amadeus) in 2010. The Amadeus database contains and provides comprehensive financial information on millions European companies. The data are standardized and collected by national agencies. For the purposes of this paper, the year 2010 was selected together with 4004 companies from the agricultural sector (CZ NACE 01, excluding hunting – 01.7), see table 1.

Table 1: Number of companies according to the country of origin

Country ISO Code	Number of companies
CZ	1616
PL	1064
SK	714
HU	610
Total	**4004**

Source: own work based on database Amadeus

For each company the following variables were calculated as follows:

The net income is the profit (loss) for the year. If this indicator is lower than zero, it means company is making a loss, i.e. negative net income. If the indicator is above zero, it means company is generating a profit.

Return on equity (ROE) is calculated as profit (loss) for period divided by shareholders equity, expressed as a percentage (i.e. multiplied by 100).

Costs of equity (r_e) are estimated via build up model INFA as heuristic model which determines costs of equity as a sum of risk-free rate and individually estimated risk premiums specific for particular company (Neumaierová, 2005; Kolouchová and Novák, 2010).

$$r_e = r_f + RP, \tag{3}$$

where r_f is the risk-free rate and RP stands for additional risk and is calculated as:

$$RP = rLA + rPOD + rFINSTAB + rFINSTRU, \tag{4}$$

in which all *r*s stand for additional risks associated with company size, business risk, financial stability and financial structure, respectively. Generally, additional risk associated with company size evaluates the company's equity in the context with stated values and if the equity is higher, there is

no additional risk, if lower the 5 per cent points are added. Similarly, additional risk associated with business risk compares the return on assets (ROA) with the industry average. If the company's ROA is higher than industry average, no additional risk is added, if lower, 10 per cent points are added. Analogically, additional risk associated with financial stability monitors current ratio and additional risk associated with financial structure monitors the interest cover indicator.

The value spread is calculated as a difference between return on equity and costs of equity. If the return is higher than costs, the new value is created, if the return is lower, the value is destroyed.

$$value\ spread = ROE - r_e \quad (5)$$

The descriptive statistics for each variable and country is provided in table 2.

Table 2: Descriptive statistics for each variable

Net income (th EUR)	**CZ**	**PL**	**SK**	**HU**	**V4 - total**
Mean	90,71	257,12	-7,14	130,35	**123,52**
Median	42,94	100,57	4,79	57,43	**44,18**
Mode	4,03	2,78	17,60	74,17	**2,78**
Std. deviation	300,51	870,06	225,29	425,42	**531,28**
Kurtosis	75,64	144,74	38,60	18,35	**295,64**
Skewness	2,83	10,70	-1,24	0,71	**13,21**
Minimum	-3 250,61	-1 866,97	-2 387,17	-3 222,55	**-3 250,61**
Maximum	4 979,34	14 442,24	2 120,46	3 383,62	**14 442,24**
Sample size	**1 616**	**1 064**	**714**	**610**	**4 004**

ROE (%)	**CZ**	**PL**	**SK**	**HU**	**V4 - total**
Mean	5,54	13,73	2,38	3,83	**6,89**
Median	4,02	12,81	0,96	3,94	**4,94**
Mode	0,45	31,38	0,01	8,42	**2,74**
Std. deviation	48,32	56,68	69,70	44,36	**54,57**
Kurtosis	110,31	136,30	91,37	56,87	**116,78**
Skewness	-4,17	-2,39	-5,26	-2,60	**-4,04**
Minimum	-860,74	-962,50	-929,83	-490,02	**-962,50**
Maximum	628,49	816,22	541,92	428,15	**816,22**
Sample size	**1 616**	**1 064**	**714**	**610**	**4 004**

r_e (%)	**CZ**	**PL**	**SK**	**HU**	**V4 - total**
Mean	16,92	17,43	21,52	24,70	**19,06**
Median	12,89	11,85	19,23	22,97	**16,81**
Mode	8,75	10,99	9,15	42,50	**8,75**
Std. deviation	9,19	8,87	10,35	9,69	**9,84**
Kurtosis	-0,72	0,42	-1,11	-1,08	**-0,68**
Skewness	0,74	1,25	0,30	0,38	**0,70**
Minimum	6,81	7,22	8,59	12,11	**6,81**
Maximum	38,75	40,99	39,15	42,50	**42,50**
Sample size	**1 616**	**1 064**	**714**	**610**	**4 004**

Source: own work based on database Amadeus

To verify the value creation of agricultural companies in the each V4 member country, the value spread was calculated for each individual company within the sample.

Chi-square test of independence was used to investigate the independence between value spread and country of origin of the agricultural company. Both variables are categorical: value is created/is not and country of origin of the agricultural company is CZ (Czech Republic), PL (Poland), SK (Slovakia), or HU (Hungary). The general Chi-square test of independence framework by Hendl (2009) is used, as provided below:

$$\chi^2 = \sum \frac{(observed\ frequency\ - expected\ frequency)^2}{expected\ frequency}, \tag{6}$$

where χ^2 is Pearson's test statistic which can be compared to critical value with degrees of freedom on the given significance level. The degrees of freedom (*df*) can be calculated as a number of categories in the table *r* x *s: (r-1)*(s-1)*. The tables are called contingency tables. If the test statistic is higher than critical value, the hypothesis is rejected. In the case the hypothesis is rejected, the dependence is further examined by other coefficients, for example by the Cramer's V coefficient.

$$\mathrm{V} = \sqrt{\frac{\chi^2}{n(m-1)}}, \tag{7}$$

in which *V* is the Cramer's V coefficient, *n* the total number of cases and *m* is the lower number of total rows or columns. The Cramer's V coefficient is within the scope of (0, 1); when the coefficient is equal to zero, there is no dependence; if the coefficient is 1, there is a strong relation between selected variables.

The independence test is given on the 5% level of significance (P value = 0.05).

All the statistics of this paper is conducted in the software IBM SPSS.

2 Results and discussion

The contingency table (tab. 3) is provided for the value spread and net income overview according to the country of origin of the agricultural company. Each row presents the absolute and also relative frequency of companies firstly with positive and secondly with negative value spread according to the company's net income, for example, in the Czech Republic (CZ) there are only 483 companies from the CZ sample, i.e. 29.9 % of CZ companies, having positive value spread and generating profit at the same time and 804 companies, i.e. 49.8 %, still generating profit but having negative value spread. At the end of each row, the total absolute or relative frequency is shown, for example, in the

CZ, there are 1287 companies generating profit, i.e. 79.6 % of the CZ sample. Analogically, each column provides absolute and relative frequency of companies according to the profit/loss and at the end, the total absolute or relative frequency for value spread (positive/negative) is shown, for example, in the CZ, there are 483 companies creating positive value spread, i.e. 29.9 %, but more than 70 % is destroying the value, expressed as negative value spread (in 1133 cases). This contingency table (tab. 3) provides the relation between the net income and the value spread for the each V4 member country and also cumulatively, for the V4 as a whole.

Tab. 3: Selected variables and their absolute and relative frequencies in the contingency table

Country ISO Code	Net income	Absolute frequency			Relative frequency		
		Value Spread		Total	Value Spread		Total
		Positive	Negative		Positive	Negative	
CZ	Profit	483	804	1287	29.9%	49.8%	79.6%
	Loss	0	329	329	0.0%	20.4%	20.4%
	Total	**483**	**1133**	**1616**	**29.9%**	**70.1%**	**100.0%**
PL	Profit	532	424	956	50.0%	39.8%	89.8%
	Loss	0	108	108	0.0%	10.2%	10.2%
	Total	**532**	**532**	**1064**	**50.0%**	**50.0%**	**100.0%**
SK	Profit	139	339	478	19.5%	47.5%	66.9%
	Loss	0	236	236	0.0%	33.1%	33.1%
	Total	**139**	**575**	**714**	**19.5%**	**80.5%**	**100.0%**
HU	Profit	104	384	488	17.0%	63.0%	80.0%
	Loss	0	122	122	0.0%	20.0%	20.0%
	Total	**104**	**506**	**610**	**17.0%**	**83.0%**	**100.0%**
Total	Profit	1258	1951	3209	31.4%	48.7%	80.1%
	Loss	0	795	795	0.0%	19.9%	19.9%
	Total	**1258**	**2746**	**4004**	**31.4%**	**68.6%**	**100.0%**

Source: own work based on database Amadeus

It is noticeable, that there are no companies creating value and making loss at the same time. The logic is simple: since the ROE as a component of the value spread calculation is calculated as a ratio of net income and company's equity, if the net income is negative, i.e. company is making a loss, the ROE cannot be positive and therefore, the value spread cannot be positive. In other words, if the net income is negative, the value spread is negative, too.

According to the findings it appears, that while profit-generating companies are prevailing in all countries, companies creating value for its owners having ROE (obtained returns) higher then r_e (expected returns) are rather rare, only 29.9 % in the Czech Republic, 19.5 % in Slovakia, and 17 % in Hungary. The most optimistic situation appears to be in Poland, where the ratio is 50 % of companies creating value. According to the indicator of net income, the situation appears quite optimistic in all

V4 countries: there are almost 80 % profit generating companies in CZ, almost 90 % in PL, almost 67 % in SK and 80 % of companies in HU. Therefore, there must be companies generating profits but not creating value for the owners via the value spread approach. These facts lead to conclusion that the EAT perspective provides misleading information about economic performance of agricultural enterprises: profit-generating companies do not cover their costs of equity capital by returns on this equity (in almost 50 % of cases in CZ, almost 40 % in PL, almost 48 % in SK and 63 % in HU). This disproportion can be a result of low return on equity, or high costs of equity capital. Unfortunately, both these aspects are typical for agricultural companies (Kopta and Maršík, 2009).

For the verification of the relation between the two variables (value spread and country of origin of individual agricultural company) the Chi-square test of independence was employed (tab. 4).

Tab. 4: Results of Chi-square test of independence and Cramer's V coefficient

Pearson Chi-Square (test statistic)	278.028
Degrees of freedom (d*f*)	3
Critical value	7.8153
Significance level of the test (alpha)	5 % (0.05)
Cramer's V coefficient	0.264

Source: own work

According to the results of the Chi-square independence test (and critical value approach) the hypothesis about the independence: *„Creating/destroying value according to the value spread method does not depend on the country of origin of the agricultural company within the observed sample"* can be rejected on the given significance level.

Therefore, it can be said that creating/destroying value (value spread approach) depends on the country of origin of the agricultural company: CZ, PL, SK, HU, within the observed sample. Since creating value according to the value spread is not independent on the country of origin of the agricultural company, symmetric measure (Cramer's V coefficient) was employed. Based on the coefficient, the dependence between the variables is slightly positive.

The slightly positive dependence may confirm the facts that in agriculture, the return ratios are often negative (Kopta and Maršík, 2009) and therefore cannot cover the costs of equity which are estimated via INFA method, which uses risk premium for each individual company. This risk premium is rather high, due the specifics of agricultural companies. Moreover, Střeleček, Lososová and Zdeněk (2007) have identified important characteristics of Czech agricultural companies: increasing dependence of public subsidies on net incomes, which can be considered as above-average compared to EU-15. Moreover, Vavřina et al. (2012) provide the evidence, that this is the case of all V4 agricultural companies. Based on this fact, it can be inferred that EAT can be partly shielded by

these subsidies. Vavřina et al. (2012) also prove that there is an increasing tendency of public subsidy financing in the period 2004 – 2011. As far as the public subsidies are concerned, any reduction or elimination of this kind of financing would inevitably lead to slump of the entrepreneurial income in Slovakia (Božík, 2011). Agricultural companies in Poland appear as most economic efficient, on the other hand, they are beneficiaries of hidden or indirect subsidies which may result in better economic performance (tab. 3). Therefore, it cannot be directly assumed that polish agricultural companies are more competitive in comparison with the other V4 member countries (Vavřina et al., 2012).

There are also other differences stemming from the production deviation: crop vs. animal production. In Slovakia, for example, local agricultural companies have to face decreasing trend of the arable land area, in favour of setting the land aside of the producing (Božík, 2011). Moreover, Božík (2011) states that there is a slump of animal production tending to the end of animal production in Slovakia at all.

In order to deal with these aspects of agricultural sector, there is a need to enhance the initiatives for horizontal integration of agricultural companies. Wolz, Fritzsch and Pencáková (2006) have proved that the ability of agricultural companies to cooperate horizontally positively influences net incomes of these companies, especially in terms of collective bargaining for prices of inputs (Banaszak, 2007). This horizontal cooperation may be in the form of agricultural cooperatives; however, many companies employ the strategic alliances in the form of mutual cooperation. These strategic alliances are relationships based on formal agreements between companies willing to agree upon certain objectives; however, remaining independent companies (Wu et al., 2009). Since this type of horizontal integration can be considered as a response to the competitive environment (Dickson and Weaver, 2011), it is more often to cooperate when trading internationally within the global field of business (Isoraite, 2009), regardless the industry (Shah and Swaminathan, 2008).

On the other hand, if the income valuation methods are employed, there is a need to identify valuation objects fulfilling the income valuation requirements, in advance. Considering selected variables, net income and the value spread, as proper indicators of applicability of income valuation methods, these indicators have highlighted 30 % of companies in CZ, 50 % of companies in PL, 20 % of companies in SK, and 17 % of companies in HU with positive value spread and net income, therefore suitable for the application of income valuation methods. The indicator of net income has individually highlighted 80 % in CZ, 90 % in PL, 67 % in SK and 80 % of companies in HU. Based on that, the indicator of the value spread is more precise and provides more accurate information about the applicability of income valuation method (tab. 3). Companies with positive value spread (30 % in CZ, 50 % in PL, 20 % in SK and 17 % in HU) can be suitable sample for smooth application of the

income valuation method, for example the EVA method. Cumulatively, only 31.4 % of all V4 agricultural companies are suitable for the income valuation methods application (tab. 3).

Conclusions

Overall, the picture that emerges from agricultural companies in the V4 is consistent with the findings of Kopta a Maršík (2009), Banaszak (2007) or Vavřina et al. (2012). There is a confirmation, that the value spread is positive only in 31.4 % of cases: only 31.4 % of the sample report higher return on equity than costs of equity capital. This fact may be caused by agricultural specifics, as outlined by Střeleček, Lososová and Zdeněk (2007), Banaszak (2007) or Vavřina et al. (2012). Whereas the net income indicates greater percentage of companies to be profitable, according to the value spread, the majority reports negative difference between obtained and expected returns (tab. 3). Additionally, there is evidence that companies creating value do have to generate a profit, but companies destroying their value do not have to report a loss (tab. 3).

For the verification of the relation between the two criteria (value spread and country of origin of the individual agricultural company) the Chi-square test of independence was employed to accept or reject the null hypothesis: *„ Creating/destroying value according to the value spread method does not depend on the country of origin of the agricultural company within the observed sample ".* On the given significance level, the null hypothesis was rejected and alternative hypothesis was accepted: it can be said that creating/destroying value depends *on the country of origin of the agricultural company*, within the observed sample. Based on Cramer's V coefficient, the dependence is slightly positive (tab. 4).

Both net income and the value spread may serve as proper indicators for verification of applicability of income valuation methods, since the value spread is a part of the income value calculation (Dluhošová, 2004; Plenborg, 2002). If a company does not create value, i.e. does not cover its costs of equity by return on equity, the income valuation methods are not applicable, or the resultant income value may provide insufficient information. These application obstacles may be prevented by verification of fulfilment of income valuation method requirements. Both net income and the value spread may collectively provide the information, whether or not the income methods are applicable. In contrast, net income has individually highlighted 80.1 % of companies; the value spread has individually highlighted 31.4 % of companies. Since there cannot be companies making loss and creating value at the same time, the value spread appears to be adequate measure for suitable income valuation object identification.

Finally, the paper findings have proved that the value spread depends on the country of origin of individual agricultural company; in other words, it can be assumed that the differences among individual agricultural companies in the V4 countries are statistically significant.

On the other hand, there is still a limitation of the time, since this research was conducted in one year only. This limitation is slightly compensated with the sample size, which are 4004 agricultural companies from the Visegrad group countries.

There are several possibilities how to extend this research: the research sample can be enlarged by adding all the EU member countries, however, remain working with cross-sectional data only, or enlarged in terms of time, i.e. include also other years to work with panel data. The second perspective is to follow the different scenarios of Common Agricultural Policy (CAP) of EU beyond 2013 and their consequences on individual agricultural companies in various countries. Finally, the income valuation methods can be further examined, explored and adjusted to be convenient for the specifics of agricultural companies. The most important challenge in the company valuation process is the quality and availability of data. Assuming the data are true and unbiased, the close cooperation between valuation subject (i.e. expert) and valuation object (i.e. a company) is essential and inevitable. Based on this fact, the resultant value is often a trade secret.

References

BANASZAK, I., 2007: CORVINUS UNIVERSITY OF BUDAPEST (CUB). *Testing Theories of Cooperative Arrangements in Agricultural Markets: Results from Producer Groups in Poland*. Budapest.

BILD, M., GUEST, P., COSH, A., and RUNSTEN, M., 2002: Do takeovers create value? A residual income approach on UK data. *ESRC Centre for Business Research, University of Cambridge, Working paper No. 252.* URL: http://www.cbr.cam.ac.uk/pdf/WP252.pdf

BOŽÍK, M., 2011: Podklady k súhrnnému materiálu k procesu reformy Spoločnej poľnohospodárskej politiky EÚ po roku 2013. Analýza a výhľad dosahov reformy SPP po roku 2013. In: *Výskumný ústav ekonomiky poľnohospodárstva a potravinárstva.* [online]. [2012-09-05], http://www.vuepp.sk/dokumenty/ine/2012/SPP2_bozik.pdf

BREALEY, R. A., MYERS, S. C. a MARCUS, A. J., 2007: *Fundamentals of corporate finance*. 5th ed. McGraw-Hill/Irwin. ISBN 978-0-07-110592-7.

CASSIA, L. and VISMARA, S., 2009: Valuation Accuracy and Infinity Horizon Forecast: Empirical Evidence from Europe. *Journal of International Financial Management and Accounting*. 2009, Vol. 20, No. 2, pp. 135-165.

DAMODARAN, A., 2007: *Valuation Approaches and Metrics: A Survey of the Theory and Evidence*. Now Publishers. ISBN 9781601980144.

DICKSON, P. H. and WEAVER, K. M., 2011: Institutional readiness and small to medium-sized enterprise alliance formation. *Journal of Small Business Management*. 49(1), pp. 126-148.

DLUHOŠOVÁ, D., 2004: Přístupy k analýze finanční výkonnosti firem a odvětví na bázi metody EVA – Economic Value Added. *Finance a úvěr – Czech Journal of Economics and Finance*. 2004, Vol. 54, No. 11-12, pp. 541-559.

ELSNER, S., KRUMHOLZ, H.C., and RICHTER F., 2012: Residual income valuation and management remuneration under uncertainty: a note. *Review of Managerial Science*. 2012, 6 (4), pp. 333-359. DOI: 10.1007/s11846-010-0058-x.

GULATI, R., 1998: Alliances and networks. *Strategic Management Journal*. 19, pp. 293-317.

HENDL, J., 2009: *Přehled statistických metod: analýza a metaanalýza dat*. 3rd ed. Praha: Portál. 696 p. ISBN 978-80-7367-482-3.

HILL, C. W. L. and JONES, G. R., 2009: *Theory of Strategic Management with Cases*. 8th ed. [s.l.]: South Western. 995 p. ISBN 978-1-4390-3560-3.

ISORAITE, M., 2009: Importance of strategic alliances in company's activity. *Intelektinė ekonomika mokslo darbų žurnalas = Intellectual economics: scientific research journal Mykolo Romerio Universitetas ; Lietuvos Mokslų Akademija ; Vroclavo Universitetas*. 2009, 1(5), pp. 39-46. ISSN 1822-8038.

KISLINGEROVÁ, E., 2001: *Oceňování podniku*. 2nd ed. Praha: C. H. Beck. 367 p. ISBN 80-7179-529-1.

KOLLER, T., et al., 2010: *Valuation: Measuring and Managing the Value of Companies*. 5th ed. Hoboken (NJ): Wiley & Sons, Inc.. 811 p. ISBN 978-0-470-42465-0.

KOLOUCHOVÁ, P. and NOVÁK, J., 2010: Cost of Equity Estimation Techniques Used by Valuation Experts - IES Working Paper 8/2010. *IES FSV*. Charles University.

KOPTA, D. and MARŠÍK, M., 2009: Analysis of the Structure of Production over Profitability and Risk of Farms. *Acta Universitatis Bohemiae Meridionales: The Scientific Journal for Economics, Management and Trade*. České Budějovice: Jihočeská univerzita, Vol. XII, No. 2, pp. 93-98. ISSN 1212-3285.

LANDSMAN, W. R., PEASNELL, K. V., POPE, P. F., and YEH, S., 2006: Which approach to accounting for employee stock options best reflects market pricing?: a note. Review of Accounting Studies. 2006-7-18, 11, 2-3, pp. 203-245. DOI: 10.1007/s11142-006-9008-x.

MAŘÍK, M., 2007: *Metody oceňování podniku*. 2nd ed. Praha: Ekopress. 492 p. ISBN 978-80-86929-32-3.

MICKIEWICZ, A., 2012: Polish Agriculture in the Common Agricultural Policy after 2013. *Economic Science for Rural Development*, Nr. 27. pp. 159-163. ISSN: 1691-3078.

MISHRA, D. R., T. J. O'BRIEN, 2005: Risk and ex ante cost of equity estimates of emerging market firms: a note. Emerging Markets Review. 2005, 6, 2, pp. 107-120. DOI: 10.1016/j.ememar.2005.03.002.

NEUMAIEROVÁ, I., et al., 2005: *Řízení hodnoty podniku*. 1. ed. Praha: Profess Consulting. 233 p. ISBN 80-7259-022-7.

PLENBORG, T., 2002: Firm valuation: comparing the residual income and discounted cash flow approaches. *Scandinavian Journal of Management,* 18, pp. 303-318.

ROBBINS, S. P. and JUDGE, T. A., 2007: *Organizational Behavior*. 12th ed. New Jersey: Pearson Education, 759 p. ISBN 0-13-243156-4.

SHAH, R. H. and SWAMINATHAN, V., 2008: Factors influencing partner selection in strategic alliances: the moderating role of alliance context. *Strategic Management Journal*. 29(5), pp. 471-494. http://doi.wiley.com/10.1002/smj.656

SKOGSVIK, K., 2002: A tutorial on residual income valuation and value added valuation. *SSE/EFI Working Paper Series in Business Administration No 1999:10.* June 2002, second version.

STŘELEČEK, F., LOSOSOVÁ, J. and ZDENĚK, R., 2007: Economic results of agricultural enterprises in 2005. *Agricultural Economics (AGRICECON)*. Vol. 53, No. 5, pp. 201-216. ISSN 0139-570x.

STUBELJ, I., JERMAN, M., and DOLENC, P., 2009: The analysis of residual income – the empirical evidence from Slovenia. *Studia Universitatis Babes-Bolyai, Negotia*, LIV, 1, pp 3-19.

VAVŘINA, J. and RŮŽIČKOVÁ, K., 2012: Agricultural Producers' Groups in the Czech Republic: Introductory Review and Discussion of the Problem Area Economic Performance Measurement. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*. 2012. sv. LX, ISSN 1211-8516.

VAVŘINA, J., RŮŽIČKOVÁ, K. and MARTINOVIČOVÁ, D., 2012: The CAP Reform Beyond 2013: The Economic Performance of Agricultural Enterprises within the Visegrad Group. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis.* 2012. sv. LX, ISSN 1211-8516.

WOLZ, A., FRITZSCH, J. and PENCAKOVÁ, J., 2006: The impact of structural social capital on farm income in the Czech Republic. *Agricultural Economics (AGRICECON)*. Vol. 52, No. 6, pp. 281-288. ISSN 0139-570X.

WU, T.-F., HO, Y.-L. and CHANG, Y.-H., 2009: Establishing a strategic alliance for Taiwanese rural wineries. *Asian Journal of Management and Humanity Sciences*. 4(2-3), pp. 147-160.