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Influence of Finansing Policy to Company'S Value

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Abstract:

In this article it is shown that even in the case of constant leverage the cost of equity and the WACC can vary over time. Constant cost of equity and WACC only apply, if further assumptions are made. A corollary of this analysis is the result that, if changes in debt volume affect the dividend payment, the Gordon-Growth-Formula can only be used in the case of constant leverage if the assumption set of Miles and Ezzell applies.In business valuation, the focus is often on the so-called discounted cash flows method. When applying the method, business risk valuation is done by taking only the discount rate into account. This is a very general assumption, which in theory should reflect all possible and probable risks. However, for the purpose of modelling business value dynamics this is not enough, because all business-related risks have to do with various individual and changeable probabilities. Business-related risks on the basis of which business valuation is performed are not being adequately estimated in terms of probabilities. Attempts to achieve a greater business value should be based on research where possibilities to increase business value are modelled based on value estimates and risks related to the optimal relationship criterion. The aim of the article is to analyse and identify the feasible and relative financing alternatives. The results of the research were presented with the help of the probability density function that includes business value variables. The results show that the increase in business value as the goal of each business could and should be analysed together with the value variable-related probability, i.e. in the light of the value risk criterion.

Key words: valuation, value management, value riskiness, simulation, interdependence of variables, discount rate.

JEL Classification: C31, C81, I11, J28, J3.

I. INTRODUCTION

The choice of asset or business valuation method depends on the type of asset value that the client considers to be relevant and on what the valuator considers to best reflect the value of the asset in the open market. There is a widely recognised theory that forms the solid basis for the valuation of business interests. In theory, the value depends on the future benefit for the business interests as discounted to current value in line with a particular discount (capitalisation) rate. Thus, in theory it would be right to plan the future benefit (profit, cash flows or dividends) and to discount the planned cash flow to current value.

The process of business valuation is to a large extent focused on the so-called discounted cash flows (hereinafter – DCF). Identification and discounting of the current value of future cash flows lie at the basis of the method. The DCF method can be modified to adapt to a particular situation, i.e. cash flows may be substituted with net profit, dividends, interest, rental payments, etc. This makes the DCF method suitable for the valuation of business and investment projects, including the efficiency of various economic activities and profitability of financial instruments and operations.

This method reflects the value of a business expressed as the value of future cash flows (Copeland, Koller, Murrin, 2000; Peemöller, Bömelburg, Denkmann, 1994). This is why the valuation of future cash flows deserves particular attention. The longer the forecasting period of the future cash flows, the more complicated is the whole process. Often the total period in time is divided into several stages. In the final stage a fixed interest (discount) rate with a respective degree of steady growth is applied. The method has certain advantages as it makes business valuation at the final stage a comparatively easy process because of the value net formula with the fixed discount rate and the steady-growth rate that applied. When the value net formula is applied, the possible business financing options are identified at the final stage. These are universal, they reflect the active ability to generate revenue and assessment of external business environment factors, including the expected cash flows.

The aim of the article is to analyse and identify the feasible and relative financing alternatives, including their effect on the valuation equation based on the cash flow to equity and the weighted average cost of capital methods with a special focus on proving that from the analytical point of view these two methods result in identical business valuation outcomes provided that a value net model-based financing policy is consistently taken into consideration when composing a valuation equation.

First and foremost, the article identifies and describes the preconditions for the general value net model which are analysed as part of specific research efforts. Then a separate assessment is made of the adaptation of the value net formula with respect to the cash flow to equity and the weighted average cost of capital methods. The research showed that the objective of increasing business value can and should be analysed in relation to the probability of achieving the target value of a business, i.e. in relation to respective business value risks.

II. THE VALUE NET MODEL WITH THE ESTIMATE OF NET CASH FLOWS

The value net formula measures the net value based on an additional steady-growth discount rate. The value net formula is given below (Coenenberg, Schultze, 2002; Bartels, Engler, 1999):

$$GV_0 = \sum_{t=1}^{\infty} \frac{Z \cdot (1+g)^{t-1}}{(1+r)^t} = \frac{Z}{r-g}, \qquad (1)$$

where:

GV_0 – net baseline value;

Z – initial additional cash flow payments;

g – steady-growth rate;

r – fixed discount rate.

The formula is used to calculate the net value under steady-growth rate and infinite payments. There are two more operations that are important in terms of further deliberations. On the one hand, it is possible to rearrange the equation (1) purely because both the growth rate and the discount rate are a constant. On the other hand, the equation (1) allows concluding that the value net of steady profit grows by g% per period in time:

$$GV_{T-1} = \sum_{t=1}^{\infty} \frac{Z \cdot (1+g)^{T-1} \cdot (1+g)^{t-1}}{(1+g)^t} = \frac{Z}{r-g} \cdot (1+g)^{T-1}$$

$$GV_T = \sum_{t=1}^{\infty} \frac{Z \cdot (1+g)^{T} \cdot (1+g)^{t-1}}{(1+g)^t} = \frac{Z}{r-g} \cdot (1+g)^{T}$$

$$\Rightarrow \frac{GV_T}{GV_{T-1}} - 1 = g. \qquad (2)$$

The factor of the infinite, continuous period in time, which is difficult to perceive intuitively, can be used to explain the dependence. (Kruschwitz, Löffler, 1998; Matschke, Hering, 1999; Blaufus, 2002). The number of periods in time characterised by a steady growth in payments does not depend on the baseline situation. The later the payments start, the bigger is the base of steady growth. If the growth base increases by g% with every period in time, the value net of steady profit also grows by g%.

The value net formula brings out the general features of the DCF method. In view of future cash flows, the future is divided into many periods in time (phases) (Ballwieser, 1998; Schildbach, 2000; Coenenberg, Schultze, 2002). In the final period an assumption is made that cash flows will grow infinitely at a fixed rate of g% (Olmann, Richter, 1999; Drukarzcyk, Richter, 2000; Henselmann, 2000). As a result, only the cash flows that fall under the first year have to be identified and evaluated. One of the ways to calculate business value at the beginning of the final period in time is by applying the value net formula. Thus, an assumption is made that both the growth rate and the discount rate are a constant (Coenenberg, Schultze, 2002) and this assumption forms a basis for other research. In both the case of the net cash flow to equity method and weighted average capital cost method the discount rate depends on respective business financing solutions (Wallmier, 1999; Drukarczyk, Honold, 1999). The current research should help identify the conditions under which the value net model can be adapted for use in business valuation.

Main assumptions. Several main assumptions have been defined to substantiate the results of the research. The future is divided into a number of periods in time and is literally eliminated at the final stage of valuation. It is then assumed that next year the business subjected to valuation will receive the expected cash flows which will be growing at a steady rate. The growth rate is related to safety. Business holds a certain amount of borrowed capital over a certain valuation period (Richter, 1998). The interest rate on the borrowed capital remains fixed just like the profit margin. In addition, a simplified taxation and payment system is used which results in the application of a fixed tax rate and a fixed interest rate on the borrowed capital.

The same course of research will be repeated further in the article where a description of the principal application of each model is followed by an explanation of the way discount-relevant cash flows are identified with the aim of looking at the effect that the value net model has on respective valuation equations.

III. CASH FLOW TO EQUITY METHOD

As explained earlier, the cash flow method discounts future positive cash flows of a company (Grinblatt, Titman, 2002; Schmidbauer, 2002). Discussions are still ongoing about differences in calculation methods and procedures with the aim to achieve that different theoretical methods lead to the same business value calculation outcome. The difference between various methods lies in the type of cash flows to be discounted and the applied discount rate. The cash flow to equity method will discount the cash flows received by equity shareholders. In this case the cost of equity (after taxes) will be used as the applicable discount rate and the obtained outcome will reflect the value of an owner's equity (Auge-Dickhut, Moser, Widmann, 2000). If cash flow to equity is CF^E and the cost of equity is r^E, the formula used to calculate the value of an owner's equity will be as follows:

$$E_0 = \sum_{t=1}^{\infty} \frac{CF_t^E}{\prod_{x=1}^{t} \left(1 + r_x^E\right)}, \qquad (3)$$

where:
E_0 – equity value at baseline;
CF^E – cash flow to equity over a period of time t;
r^E – cost of equity.

Calculation of the overall business value IV_0 requires adding the value of borrowed capital D_0 to the equity value:

$$IV_0 = E_0 + D_0, \quad (4)$$

where:
IV_0 – overall business value;
D_0 – value of borrowed capital.

Since the cash flow to equity method is first of all used to establish equity value only, these types of methods are described as 'net methods' or 'equity type' methods.

IV. CASH FLOW TO EQUITY ESTIMATION (VALUATION)

In order to estimate business value based on the cash flow to equity method it is first of all necessary to estimate the discounted cash flow, which is characterised by a positive cash flow (profit) to equity ratio received during separate periods in time. The easiest way to estimate it would be to add all the revenue and to subtract all the costs. Actually there is insufficient information to perform the calculations, because cash flow calculations are performed indirectly. The key source of information on cash flow is the annual excess profit, which is decreased by the amount of revenue that is not related to cash instalments and increased by the amount of costs that are not related to cash payments. All of this, minus changes in operating capital, results in the operating cash flow (Scheffler, 2002; Bitz, Terstege, 2003). The operating cash flow is reduced by the amount of investment expenditure. The whole process is depicted in Figure 1.

	Earnings before interest, taxes, depreciation and amortisation
+	Long-term asset depreciation costs
–	Interest on borrowed capital
=	**Operating cash flow**
–	Investment expenditure
+	Revenue from sold assets
=	**Post-investment cash flow**

Fig.1. Cash flow to equity

Post-investment cash flow is not yet cash flow that can be discounted by using the cash flow to equity method. When calculating post-investment cash flow, it is assumed that investments are financed from operating cash flow (after interest) only. In cases where additional borrowed capital is used to partially finance the investments, part of the sum that would otherwise be used to finance the investment goes to equity shareholders. On the other hand, if the amount of borrowed capital decreases, the amount that is to be repaid shall be financed from the operating cash flow, which reduces the share of cash flow received by equity shareholders. All of this means that in order to define the amount of cash flow received by equity shareholders, post-investment cash flow shall be subjected to corrections in the amount that reflects changes to the amount of borrowed capital (Dutschmann, Heitzer, 1999) (see Figure 2).

	Post-investment cash flow
+	Increase in borrowed capital
–	Decrease in borrowed capital
=	**Free cash flow to equity**

Fig. 2. Calculation of free cash flow to equity

The final cash flow is the cash flow discounted based on Formula (3).

V. VALUE NET FORMULA OF THE CASH FLOW TO EQUITY METHOD

For the purpose of this article an assumption was made that future cash flow which is important in the process of business valuation will grow by g% every year as of the start of period *t=1*. If post-investment cash flow is defined as CF and changes in the borrowed capital are defined as ΔD then Formula (3) leads to the following equation:

$$E_0 = \sum_{t=1}^{\infty} \frac{(CF + \Delta D)\cdot(1+g)^{t-1}}{\prod_{x=1}^{t}\left(1+r_x^E\right)}. \qquad (5)$$

Here E_0 represents the value of equity in the final stage. In order to be able to use the value net formula yet another assumption shall be made saying that the cost of equity remains fixed throughout the entire period. Then equation (5) is reformulated into the following valuation equation:

$$E_0 = \sum_{t=1}^{\infty} \frac{(CF + \Delta D)\cdot(1+g)^{t-1}}{\left((1+r^E\right)^t} = \frac{CF + \Delta D}{r^E - g}. \quad (6)$$

However, the theory of corporate finance explicitly says that the cost of equity depends on the policy of financing (the leverage effect) (Nippel, 2002). Based on arbitrary deliberations, mutual interdependence between the cost of equity and the degree of indebtedness is presented below (Inselbag, Kaufold, 1997; Drukarczyk, Honold, 1999; Wallmeier, 2001). Here an assumption is made that $r^* = r^D$):

$$r_T^E = r^N + \left(r^N - r^E\right)\cdot\frac{D_{T-1}}{E_{T-1}} - \left(r^N - r^*\right)\cdot\frac{M_{T-1}}{E_{T-1}}, \quad (7)$$

where:
r^N – corporate costs of a business that has no borrowed capital;
r^D – borrowing costs;
D_t – market value of borrowed capital over the period t;
M_t – future tax benefits due to external financing over the period t, which shall be calculated as follows:

$$M_{T-1} = \sum_{t=T}^{\infty} \frac{MT\cdot r^D\cdot D_t}{\left(1+r^*\right)^{t-T+1}}, \qquad (8)$$

where:
MT – corporate tax rate;
r^* – fixed adequate discount rate applicable to tax benefits.

In terms of further deliberations, it is also important to note that formula (8) reflects linear interdependence between borrowed capital over the period t and tax benefits

$$\left(\frac{\partial M_T}{\partial D_t} = \frac{MT\cdot r^D}{\left(1+r^*\right)^t}\right).$$

Equation (7) leads to further reasoning that the cost of equity will remain unchanged over time only on condition that the ratio (quotient) $\frac{D_{T-1} - M_{T-1}}{E_{T-1}}$ is a constant. To be more exact, this is the case when the following dependence applies:

$$\frac{D_T - \frac{\left(r^N - r^*\right)}{\left(r^N - r^E\right)}\cdot M_T}{E_{T-1}\cdot(1+g)} = \frac{D_{T-1} - \frac{\left(r^N - r^*\right)}{\left(r^N - r^E\right)}\cdot M_{T-1}}{E_{T-1}}$$

$$\Leftrightarrow D_T - M_T = (1+g)\cdot\left(D_{T-1} - \frac{\left(r^N - r^*\right)}{\left(r^N - r^E\right)}\cdot M_{T-1}\right) \quad (9)$$

Both the amount of borrowed capital and tax benefits related to external financing must grow respectively at rate *g*. Based on the linear dependence between M_T and D_t, tax-related benefits grow at the same rate as the volume of external financing. Therefore, dependence (9) is valid only when the volume of borrowed capital grows at the rate *g* over every single period in time. Therefore, the following parity should apply:

$$D_T = (1+g)\cdot D_{T-1}. \qquad (10)$$

In order to keep the cost of equity fixed under steady profit growth, the volume of borrowed capital should grow at the rate of *g%* over every single period in time. This is a valid financing alternative which is based on the value net formula in the context of cash flow to equity method. The volume of borrowed capital grows in the amount of $g\cdot D_{t-1}$ over every single period in time. Thus, the expression of borrowed capital ΔD that is used to estimate the discounted cash flow is validated. The following should be valid for the cash flow subjected to valuation:

$$\Delta D = D_1 - D_0 = (1+g)\cdot D_0 - D_0 = g\cdot D_0. \quad (11)$$

In the discounted cash flow model, the value net formula is given yet another shape (formula (11) is incorporated into formula (6)):

$$E_0 = \frac{CF + g \cdot D_0}{r^E - g}. \quad (12)$$

Only the valuation equation meets the assumptions applied to the value net formula. Changes in the volume of borrowed capital do not reflect any valuation outcomes and are mere assumptions. The final result obtained can be economically substantiated. Finally, for the purpose of the final phase of research an assumption is made that a business reaches steady-state growth. Under this kind of balanced growth only individual nominal values undergo changes. Ratios involving individual indicators remain fixed (constant). Therefore, borrowed capital should grow at the same rate as equity.

VI. WEIGHTED AVERAGE COST OF CAPITAL METHOD (WACC) EXPLAINED

The weighted average cost of capital method is used in discounting the cash flows that the business subjected to valuation accrued purely out of own capital. In this case the weighted average cost of capital (hereinafter – WACC) is used as the discount rate by taking into account the tax effect, too. The only distinction is made between own and borrowed capital (Nippel, Streiferdt, 2003):

$$WACC_T = r^E \cdot \frac{E_T}{IV_T} + (1 - MT) \cdot r^D \cdot \frac{D_T}{IV_T}. \quad (13)$$

The ratio between the borrowed capital and the overall business value shows the degree of indebtedness of a business. Therefore, if $IV_T = E_T + D_T$, then: $\frac{D_T}{IV_T} = 1 - \frac{E_T}{IV_T}$. As a result, the WACC-related business valuation equation will look as follows:

$$IV_0 = \sum_{t=1}^{\infty} \frac{CF_t^{WACC}}{\prod_{x=1}^{t} (1 + WACC_x)}. \quad (14)$$

Since CF_t^{WACC} gives an estimate of cash flows in cases where a business is financed purely out of own capital, when the WACC method is applied the excess profit earned by equity shareholders from all payments is taxed (discounted at an applicable tax rate). Therefore, the valuation equation shows the overall business value rather than the equity value (the so-called 'gross methods' or 'integral methods') (Auge–Dickhut, Moser, Widmann, 2000). The estimated equity value can be obtained by subtracting the value of borrowed capital from the overall business value.

VII. VALUATION OF CASH FLOWS IN CASES WHEN A BUSINESS IS FINANCED PURELY OUT OF OWN CAPITAL

Valuation of cash flows in relation to the WACC method is also done implicitly. The stages in which post-investment cash flows are identified are identical to those applied as part of the cash-flow to equity method (see Figure 1). In this case the cash flows of a business financed purely out of own capital are to be discounted, which means that the cash flow from investment activities reveals the effect of external financing.

Financing from borrowed capital has a double effect on post-investment cash flows. On the one hand, the interest on borrowed capital is reflected in the profit (loss) account as costs which would not have been incurred if the business had chosen to finance its operations purely out of own capital only. Therefore, the interest on borrowed capital $r^D \cdot D_0$ is attributed to the post-investment cash flows. On the other hand, the interest on borrowed capital is subtracted from the sum payable in taxes. Thus, the higher the payable interest, the smaller is the sum payable in taxes. Businesses that are partially financed by using external capital pay smaller sums in taxes than businesses that are financed purely out of own capital (Locarek-Junge, Berge, Kaden, 2002; Lobe, 2001; Dinstuhl, 2002). In order to estimate the cash flows of a business that is financed purely out of own capital, the amounts payable in taxes should be estimated, too. In that case the sum payable in taxes by a business that is partially financed from borrowed capital is added to the post-investment cash flow and a fictitious amount payable in taxes by a business financed purely out of own capital is then subtracted. The final effect is that the cash flow is shrinking. The obtained result is only a reflection of the cash flow of a business financed purely out of own capital.

VIII. VALUE NET FORMULA OF THE WACC METHOD

The assumption that future cash flow which is important in the process of business valuation will grow by g% every year as of the start of period t=1 still remains valid. If B is the value of a business financed purely out of own capital, then a new value net formula of the WACC method should look as follows:

$$IV_0 = \sum_{t=1}^{\infty} \frac{CF + r^D \cdot D_0 + MT \cdot \left(B - r^D \cdot D_0\right) - MT \cdot B \cdot (1 + g)^{t-1}}{\prod_{x=1}^{t} (1 + WACC_x)}, \quad (15)$$

where:

$r^D \cdot D_0$ – interest on borrowed capital;

$MT \cdot \left(B - r^D \cdot D_0\right)$ – amount paid in taxes by a business which is partially financed from borrowed capital;

$MT \cdot B$ – amount paid in taxes by a business which is financed purely out of own capital.

For the purpose of applying the value net formula it is assumed that both the discount rate and WACC remain unchanged (constant) with time. WACC remains fixed only if the degree of indebtedness does not change (Schildbach, 2000). Under the condition of steady indebtedness, the following formula is composed:

$$IV_0 = \frac{CF + \left(1 - MT\right) \cdot r^D \cdot D_0}{WACC - g}. \qquad (16)$$

Under what circumstance could the degree of indebtedness actually remain unchanged? It is a given that formula (16) contains the annual growth rate of business value at *g%*. Moreover, formula (15) makes it explicit that in cases when the value net formula is used, the interest on borrowed capital also grows at the rate *g* per year. Since interest on borrowed capital is defined as the cost (consequence) of borrowed capital, the growth in the interest on borrowed capital can only be achieved if the volume of borrowed capital increases respectively and capital costs remain fixed. It is also made explicit that borrowed capital grows by *g%* over every single period in time. Thus, the degree of indebtedness becomes a constant:

$$\frac{D_T}{IV_T} = \frac{D_{T-1} \cdot \left(1+g\right)}{IV_{T-1} \cdot \left(1+g\right)} = \frac{D_{T-1}}{IV_{T-1}}. \qquad (17)$$

Equation (16) reflects the assumption that borrowed capital should grow by *g%* over every single period in time for the degree of indebtedness to remain unchanged (the same). How would the additional borrowed capital be used then? In essence there are two options. First, the change in borrowed capital can be distributed to equity shareholders, just as occurs when applying the cash flow to equity method. Second, the additional share of borrowed capital can be used to finance other investment projects.

It should first of all be assessed which of the two options for the use of borrowed capital is in line with the WACC valuation equation. The incorporation of the WACC formula (13) into equation (16) results in the following:

$$r^E \cdot IV_0 \cdot E_0 = g + CF. \qquad (18)$$

The following equation is composed based on formula (4):

$$E_0 = \frac{CF + \overbrace{D_0 \cdot g}^{\Delta D}}{r^E - g}. \qquad (19)$$

The above estimate corresponds to the value equation which is used as part of the cash flow to equity method (formula (12)), where the additional share of borrowed capital is distributed. It proves that formula (16) is based on the assumption that the additional share of borrowed capital is distributed to equity shareholders. Moreover, equation (19) and equation (12) allow concluding that identical value estimates can be expected by using any of the two methods only if the financing options that were previously referred to are used.

Finally, how should the valuation formula (16) be reconstructed in cases where newly borrowed capital share is spent on additional investment projects? In that case $g \cdot D_0$ does not apply, because the newly borrowed capital share cannot be distributed to equity shareholders. As a result, the composition of the business valuation formula looks different:

$$IV_0 = \frac{CF + \left(1 - MT\right) \cdot r^D \cdot D_0}{WACC - \frac{E_0}{IV_0} \cdot g}. \qquad (20)$$

In the latter case the growth rate is multiplied by the ratio between the value of equity and the overall book value of the business, which means that it is lower than *g*.

Subsequently, the business value calculated on the basis of formula (20) is lower than that obtained based on formula (16). The difference can be explained by saying that it is only conditional on the fact that the additional borrowed capital cannot be handed over to former owners. Part of the increase is invested into the business and stops generating benefit to its former owners. Therefore, owner's equity becomes less valuable than in cases when the newly borrowed capital is distributed.

IX. CONCLUSIONS

This article looks into business valuation based on two different methods, namely cash flow to equity and weighted average cost of capital (WACC) methods. The article explains that the value net formula can be used for the purpose of valuation only when the discount interest rate is a constant. Later the article explicitly states that the value net formula involves a steady growth in equity and overall business value at a set growth rate over every single period in time. If there is a steady growth in equity value over a year, when the cash flow to equity method is applied in the process of discounting, due to the leverage effect the cost of equity can only remain unchanged when the volume of borrowed capital grows at exactly the same rate. With the help of the value net formula, the growth in borrowed capital is only determined on a conditional basis. It should be taken into consideration when discounting cash flows. Further steps are

taken to show that when the WACC method is applied the value net formula is composed on a conditional basis too, i.e. on the condition that both the volume of equity and borrowed capital infinitely grow at a steady rate. As a result, it is additionally assumed that the newly borrowed capital cannot be paid out to equity shareholders (e.g. in the form of dividends). Should the scientific deliberations analysed and researched as part of this article be consistently considered in the process of business valuation, it would result in identical business value estimates irrespective of which of the two methods is applied. To sum up, it can be claimed that business valuation with the help of two different discounted cash flow methods would result in identical valuation outcomes.

REFERENCES

[1] Auge-Dickhut, S., Moser, U. & Widmann, B. (2001). *Praxis der nternehmensbewertung.* Verlag Moderne Industrie.

[2] Coenenberg D., Schultze V. (2002). Werte messen – Werte schaffen. Festschrift für Karl-Heinz Maul, Wiesbaden.

[3] Copeland, T., Koller T., Murrin, J. (1995). Valuation. Measuring and managing the value of companies. New York: John Wiley & Sons.

[4] Drukarzcyk R., Richter M. (2000). Kommentar zur Rechnungslegung nach IFRS für nicht kapitalmarktorientierte Unternehmen. In: Zfbf, 63. Jg.

[5] Embrechts, P., Lindskog, F. and McNeil, A. (2001). Modelling. Dependence with Copulas and applications to Risk Management. Zurich: Department of Mathematics ETHZ.

[6] Embrechts, P., McNeil, A. and Straumann, D. (1999). *Correlation and Dependence in Risk Management: Properties and Pitfalls*. New York: John Wiley & Sons.

[7] Fernandez, P. (2005). Company valuation methods. The most common errors in valuations. Madrid, Spain: IESE Business School.

[8] Garškienė, A. (1997). Verslo rizika. Vilnius: VGTU.

[9] Grinblatt M., Titman S. (2002). Financial markets and corporate strategy. McGraw-Hill/Irwin; 2 edition. ISBN-13: 978-0072294330

[10] Henselmann H. (2000). Info-Veranstaltung für Studienanfänger zu "Rechnungswesen und Prüfungswesen" sowie "Wirtschaftsprüfung, insbes. digitale Datenanalyse" Am Mi. *Hermann Gutmann-Hörsaal, findet mit Prof. Henselmann und Prof. Scherr eine Informationsveranstaltung für Interessenten an diesen Vertiefungsmöglichkeiten im FACT-Master statt.*

[11] Markowitz, H. (1952). 'Portfolio selection'. *The Journal of Finance*, Vol. VII, No. 1.

[12] Nekrošius, A.; Vaškelaitis, V. (2001). 'Akcijų vertės nustatymas pinigų srautų diskonto metodais' [Share Valuation Based on the Discounted Cash Flow Method]. *Inžinerinė ekonomika*. Vilnius: VGTU.

[13] Nippel, B., Streiferdt,M. (2003*). Die Kapitalkosten von Unternehmen mit wertorientierter Finanzierungspolitik. Manuskripte zur Betriebswirtschaftslehre des Fachbereichs Wirtschaft der Fachhochschule Trier.*

[14] Peemoller B., Bomelburg M., Denkmann K. (1994). *Das Verhältnis von Aussagegehalt und Nachprüfbarkeit amerikanischer Rechnungslegung. In: Wirtschaftsprüferkammer-Mitteilungen, Sonderheft Jun.*

[15] Raudeliūnienė J., Tvaronavičienė M., Dzemyda I. V.(2014). *Towards economic security and sustainability: key success factors of sustainable entrepreneurship in conditions of global economy*. Journal of Security and Sustainability Issues www.lka.lt/index.php/lt/217049/ ISSN 2029-7017/ISSN 2029-7025 online 2014 Volume 3(4): 71–79 http://dx.doi.org/10.9770/jssi.2014.3.4(7

[16] Rutkauskas A. V.; Ginevičius R. *'Sale's Risk Diversification as Strategy of Firm's* Sustainable Development // International conference "Modeling and simulation of business systems". May 13-14, 2013, Vilnius, Lithuania. ISBN 9955-09-420-6, pp. 128-131. Kaunas: University of Technology Press, "Technologija".

[17] Rutkauskas A. V., Rutkauskas V., Trumpaitė I. (2003). 'Sale's Risk Diversification as strategic goal of firm's sustainable development'. Материалы докладов международной научно-практической конференции «Мировая экономика и бизнес-администрирование». Минск 29-31 мая 2003 г. 84-88 с. Минск: МГУ.

[18] Rutkauskas, A.V. (1999). Pelno inžinerija [Profit Engineering]. Monografija. Vilnius: VGTU.

[19] Scheffler S. (2002). The Practice of Equality. Social Equality: Essays on What it Means to be Equals. Oxford University Press.

[20] Schiefner, L. and Schmidt, R. (2003). Shareholder Value at Risk: Concept for Company Valuation, Implementation and Simulation Example. Halle-Wittenberg: Martin-Luther-Universitat.

[21] Schidbach, L. (2000). Die Rechnungslegung in Jahre-sabschluß und Konzernabschluß nach Handelsrecht und Steuerrecht, Europarecht und IAS/IFRS. Heidelberg In: ZfbF, 58.

[22] Schmidbauer W. (2002). Generally Accepted Accounting Principles, Zur Bedeutung und Systembildung der Rechnungslegungsregeln der USA. Berlin.

[23] Terstege, D. (2003). Eine neue Lehre der Unternehmensbewertung? Kritik an den Thesen von Barthel. In: DB, 50. Jg.

[24] Trahan, E A and Gitman, LJ. (1995). 'Bridging the theory-practice gap in corporate finance: A survey of chief finance officers'. The Quarterly Review of Economics and Finance, 35 (1), Spring, 73-87.

[25] Wallmeier, D. (2001). Zum Nutzen handelsrechtlicher Rechnungslegung. Rechnungslegung – warum und wie. Festschrift für Hermann Clemm, München.

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