

Alternative Risk Measurement Methods: Theoretical Aspects of the Margin of Safety

Martynas Brazauskas

Šiauliai University, Faculty of Social Sciences, Humanities and Art

P. Višinskio str. 19, LT-77156 Šiauliai, Lithuania

E-mail: martynas.brazauskas@gmail.com

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Abstract

Investment risk measurement using only quantitative methods does not always work properly measuring risk and avoiding losses. In order to effectively measure and reduce risk it is appropriate to use alternative methods for risk measurement. This paper discusses the safety limit, which applies as the method of risk measurement and reduction. Review of empirical studies has shown that B. Graham's proposed fundamental criteria to measure and reduce risk improve investment portfolio returns and efficiency.

Keywords: margin of safety, value investing, investment risk, stocks.

Introduction

Effective risk management is one of the main reasons for success of financial institutions. Inadequate risk measurement and technique selection increase the probability of loss, insolvency or other problems for financial institutions, what, in turn, leads to the loss of other financial institutions. The collapse of the financial markets results in considerable losses for both, investors and the state, which then must intervene using taxpayers' money. The global financial crisis, followed by the banking crisis, revealed the weaknesses of financial system sustainability. Incorrect risk measurement led to the losses suffered by investors and the banks, as well as ordinary taxpayers whose funds have been used to deal with banks and other financial institution problems.

Capital market expansion and competition among investment portfolio managers encourage scientists to search for more effective risk measurement techniques. Quantitative methods based on the historical price movement are used most widely. The nature of quantitative risk measurement methods and their diversity do not guarantee effective risk measurement and management. That encourages

to search for alternative risk measurement and reduction techniques.

One of the most widely used risk measurement criteria is standard deviation. This is asymmetric risk measurement criteria, its size does not depend on whether the return is positive or negative. However, in order to improve investment portfolio performance it is important to reduce the risk of drawdown and to increase the probability of profit. The risk of drawdown can be reduced not only by optimizing the risk measurement criteria but also by considering the company's financial condition, assets, income and other criteria. The question is what fundamental risk measurement criteria are and how they can be adapted to investment portfolio risk measurement.

The object of this article: risk measurement criteria.

The aim of this article is to analyse the aspects of the fundamental risk measurement criteria and their empirically based applicability for risk measurement and reduction.

The following tasks were formulated:

- To systematize and summarize the assumptions of alternative risk measurement provided in scientific literature.
- To justify the application possibilities of the chosen strategy for risk measurement.

To achieve the research aim and objectives the following methods have been applied in this work: analysis of scientific sources, synthesis and generalization.

The concept of sustainability of the financial system

The issues of sustainability of the financial system often arise for bankers, economists or financial market participants when considering the

national central bank's role, its objectives or policy subjects. Sustainability of the financial system is mostly remembered when there is a threat of the financial crisis (Leika, 2008). Sustainability of the financial system is quite a broad term. The most commonly used multiple definitions allow to describe it as unstable when a disruption of economic activity and the system itself endangers the economy (Deksnytė, 2010). According to I. F. Macfarlane (1999), sustainability of the financial system is the avoidance of the financial crisis. The financial crisis is a modern term, which can replace such terms as "banking panic", "sudden bank runs", "banking collapse". The broader term *financial* is used for a sophisticated financial system of today. More often than banks, the financial crisis may be caused by the capital markets or non-bank financial institutions, although in most cases banks will be associated with them. G. J. Schinasi (2004) defines the financial system as sustainable when it is able to positively influence the economy and resolve financial anomalies that arise endogenously or as a result of adverse and unexpected events. The Lithuanian bank defines sustainability of the financial system as the state of the financial market when its participants are able to effectively carry out the financial intermediation function and withstand shocks with no essential disorder in efficient allocation of the financial resources (Financial Stability Review, 2013). The sustainability of the financial system is more than just an absence of a crisis situation. The financial system can be considered as sustainable if it creates favourable conditions for the efficient allocation of economic resources geographically and over time, assesses prices, distributes and manages financial risk, is able to perform basic functions even when it faces external shocks and imbalances (Deksnytė, 2010).

Seeking for rational regulation of the financial system it is necessary to reduce a systemic risk and to ensure the protection of investors. The failure of financial institutions, bankruptcies could pose a threat not only to other financial institutions but also to the entire financial market. However, even if there are no problems with financial institutions, a weak financial system may adversely affect the whole economy. Since the authorities do not always give due consideration to the risk degree and costs of failure, to maintain sustainability of the financial system it is necessary to reduce the systemic risk (Novickytė, Pavlik, 2014).

Forming the investment portfolio the systemic risk depends on the prevailing market climate, economic, political and other events influencing the general market trends. The systemic risk cannot be

avoided by diversifying the investment portfolio. It is therefore important to look for alternative methods to help measure and reduce the risks. One of such methods is the application of the analysis of fundamental indicators for risk measurement.

Value investing

B. Graham and D. L. Dodd are considered the founders of value investing. Their book *Security Analysis* is called "the bible for value investors". As S. A. Klarman claims in it, "value investing is the same as in the B. Graham and D. L. Dodd times, when securities or other assets are obtained for less than they are really worth". According to B. Graham and D. L. Dodd, investing in equities is based on a triple concept: reliable and steady dividend return, stable and adequate profitability, satisfactory physical assets situation. In order to measure these three factors, the company's dividend payment history, its profit (loss) statement and balance sheet are analysed (Brazauskas, 2014).

Value investors seek the true value of the company. This strategy is based on the assumption that the stock market price is higher or lower than the actual value of the company, therefore the share price in the long period will tend to return to the true value of the company. The company's actual value is determined by applying quantitative methods. These methods help to reduce the total number of the analysed companies (Shannon, 2002).

There are three distinct strands that we can see in value investing. The simplest form of value investing is passive screening when companies are put through a number of investment screens: low P/E ratios, low P/B ratios, low risk and so forth. In its second form, there is contrarian value investing when you buy assets that are viewed as untouchable by other investors because of poor past performance or bad news about them. In its third form, there is active value investing when you buy equity of undervalued or poorly managed companies but then use the power of your position to push for change that will unlock this value (Damodaran, 2012).

Margin of safety

The markets are characterized by volatility, so investors must require the margin of safety for each investment they perform. The best way to evaluate the margin of safety of securities is detailed analysis (McLennan, 2011). Investing is not only a science but an art too, therefore, the margin of safety is very important for investors. The margin of safety is achieved when securities are bought for a lower price than the company's actual value in order to avoid losses that could occur due to human error,

failure or volatility together with an unpredictable and rapidly changing world (Klarman, 1991). The simplified idea of the margin of safety is the acquisition of securities for two-third or less of their actual value (Graham, 1974).

Value investors use the margin of safety as their protection from being wrong. The first is in their assessment of the intrinsic value of a company when errors can come from an erroneous assumption

about the future of the company or unforeseen macroeconomic risks. The second is in the market price adjustment. There is no guarantee that the stock price will move toward the intrinsic value even if the intrinsic value is right. The margin of safety should be larger for riskier companies where there is more uncertainty about the future (Damodaran, 2012). Table 1 presents the criteria defining the margin of safety offered by B. Graham.

Table 1

Stock selection criteria

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1. Earnings to price ratio that is double the AAA bond yield.
 2. P/E ratio of the stock has to be less than 40% of the highest P/E ratio the stock has had over the past five years.
 3. Dividend yield of at least 2/3 the AAA bond yield.
 4. Stock price below 2/3 of tangible book value per share.
 5. Stock price below 2/3 of net current asset value.
 6. Total debt less than book value.
 7. Current ratio greater than two.
 8. Total debt less than twice net current asset value.
 9. Historical growth in earnings per share over the past 10 years at least at a 7% annual rate.
 10. No more than two years of declining earnings over the previous 10 years.
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Source: H. R. Oppenheimer (1984), A. Damodaran (2012).

Earnings yield. Due to the higher risk and volatility of the equity, twice higher return is required from shares than bonds. The ratio of share profit and price helps to compare stock and bond yield. If bond annual yield is 5% then the profitability of the shares must be not less than 10%. In this case the stock P/E ratio is not more than 10.

Price to earnings ratio (P/E). The share price to the earnings ratio reflects how much is paid for the company's net profit euro. This ratio relates the share market price to the company's accounting profit. The main drawback of this indicator is that the company's profit is heavily influenced by the company's accounting policy, financing and capital structure formation decisions (Nasdaq OMX, 2010). Net income is the final accounting criterion measuring the effectiveness of the company (Nichols, Wahlen, 2004). Ordinary share price varies depending on the company's profits. The indicator is dependent on the psychology of investors, the company's financial situation, market sentiments and other factors (Graham, Dodd, 2008).

Dividend yield. Each company's primary goal is to pay dividends to its owners. A successful company is the one that can pay dividends on a regular basis and, depending on the situation over time, increase the payment of dividends. Since the investment idea is closely connected with the concept of a reliable income concept then it follows that investing in equities is associated with a steady

pay of dividends. Thus, the share price will be determined by the amount of paid dividends. As a result, there is a certain paradox associated with the share price. When paying increasing dividends the share price rises, greater dividends are paid from the company's profits and reserves, the more expensive its remaining assets are seen. Thus, the company's value rises reducing the value of the company (Graham, Dodd, 2008).

Analysis of the annual balance report shows how much capital is invested in the business, which is the capital structure, the validity of the generated profit what provides a basis for analysis of income sources. The more useful result of analysis of the balance report is the evaluation of the company's financial weaknesses, which reduce the attractiveness of investments. Analyzing the company's balance sheet, its book value, current asset value, cash value and liquidity value are estimated (Graham, Dodd, 2008).

Price to book ratio (P/B). Book value per share is one of the key elements in the financial report. Book value per share is equal to the current asset value declared in the balance sheet. Usually it is considered that it is the company's tangible assets. Analysing ordinary shares of the company the company's book value is identified with its own capital (Graham, Dodd, 2008). Shares price to book value ratio shows how much is paid for one euro of equity after eliminating liabilities.

Price to net current asset value ratio (P/NCAV). Current asset value is not more important than the book value. Current asset value is a stricter index of liquidity value. Liquidity value of the company shows how much the investors would recover their funds if they decide to liquidate the company. The phenomenon is when the shares are sold below their liquidity value, what is fundamentally illogical. This can be determined by the market itself, the company's management policy or approach to the company's shareholders' assets. Careful buyers of securities thoroughly examine balance sheets in order to measure the amount of cash, current asset, current liabilities structure or whether there are any liabilities that are approaching the date of the execution and may lead to financing problems (Graham, Dodd, 2008).

Financial structure indicators. Debt to equity ratio shows what the company's long-term and short-term liabilities are per one euro of equity. A higher index indicates the company's larger financial risk arising from the interest rate fluctuations. In order to measure its riskiness, the company's account debt and net current assets ratio is considered. The company's debt cannot be more than twice of the net current asset value.

Current ratio. General current liquidity ratio measures the company's possibilities to carry out short-term liabilities with its current assets. The low value of this ratio shows possible financial problems in the company's short-term liabilities (Robinson, Greuning, Henry, Broihahn, 2009).

Earnings growth. In order to measure the company's profit it is important to pay attention to the stability of the resulting profit. Profit should be reasonably stable regardless of the higher volatility over the long term (Graham, Dodd, 2008).

The first five criteria measure the stock returns. These indicators are calculated according to the share price, earnings and dividends. Criteria for measuring the returns are sensitive to the share price and earnings changes. The last five criteria measure the riskiness of securities. Three of them (criteria 6, 7, 8) measure the company's financial stability. Criteria for measuring risk are not sensitive to the share price or earnings changes (Klerck, Maritz, 1997). As B. Graham claimed, the value of the shares and the future return depend on the acceptable operating efficiency and a stable financial structure (Oppenheimer, 1984).

Review of the empirical studies

H. R. Oppenheimer (1984), applying criteria 1, 3, 6 and 9 (see Table 1), carried out the empirical

study of American (AMEX) and New York (NYSE) Stock Exchanges. Forming the investment portfolios in the 1974-1981 period, it was found that:

- annual return of the securities using criteria 1 and 6 was 38%, while using criteria 1, 3 and 6 – 26%, and using criteria 3 and 6 – 29%, when the total AMEX-NYSE stock annual return was 14%;
- the effect of the systemic risk and the company's size did not affect the efficiency of the investment portfolio;
- criteria 9 slightly increased the efficiency of the portfolio performance.

J. Lakonishkov, A. Shleifer, R. W. Vishny (1994) used book value of equity to market value of equity, cash of equity to market value of equity, earnings to market value of equity ratios and preformation 5-year average growth rate of sales for investment portfolio formation in the New York Stock Exchange and the American Stock Exchange. The sample period was from 1963 to 1990. The results showed that investment strategies that involve buying value stocks have outperformed glamour strategies over the period.

W. G. Klerck and A. C. Maritz (1997), applying criteria 1, 3 and 6 (see Table 1), carried out the empirical research in South Africa (JSE) Stock Exchange. The scientists, forming the investment portfolios in 1977-1994, found that the average monthly return of these investment portfolios was 0.74-0.98% higher than the index return.

S. X. Liang (2013), analysing the Japanese stock market, used the strategies of book to price ratio, dividend yield, price to earnings ratio, cash flow to price ratio. The selected criteria led to a greater performance efficiency of the investment portfolio. The shares in 1975-2011 of which the analysed indicators were highest, were respectively 1.07%, 0.92%, 1.37%, 1.25%, and the index return was 0.37%.

D. Cibulskienė and M. Brazauskas (2014) analysed the possibilities of the assets and profit strategy application in the Baltic Stock Exchange. The investigation showed that through the acquisition of the companies with a book value, current assets value and profit, which are sold relatively cheap, it is possible to achieve better results than the market. Investment portfolio formation, according to the relative rates, did not provide additional benefits when a passive strategy is used. However, periodically changing the composition of the portfolio, its formation on the basis of the relative rates led to higher returns than the portfolios, containing the companies in equal parts.

Stocks selection criteria effect studies

Author	Sample	Conclusion
Price to earnings ratio		
K. Anderson, C. Brooks (2006)	United Kingdom companies, 1975-2003.	Calculation of the average profit of the several years for P/E ratio allows better predict returns, than estimating a simple P/E ratio, which uses only a one-year profit.
S. Kelly, J. McClean, R. McNamara (2008)	Australian Industrial common stock, 1998-2006.	Investing in stocks with a low P/E criterion is more efficient than investments in equities with a higher P/E criterion.
C. Truong (2009)	New Zealand Stock Exchange, 1997-2007.	Low P/E stocks outperform high P/E stocks.
Price to book ratio		
E. F. Fama, K. R. French (1992)	NYSE, AMEX, NASDAQ stocks, 1963-1990.	There is a positive relation between average return and B/M ratio.
I. Kucko (2007)	Vilnius Stock Exchange, 2004-2006.	The portfolio consisted of small-capitalization companies with the greatest P/B distinguished with the highest return.
S. H. Penman, S. A. Richardson, I. Tuna (2007)	1962-2001, with stock returns from CRSP.	The enterprise book to market ratio is positively related to return.
Price to net current asset value ratio		
H. R. Oppenheimer (1986)	AMEX, NYSE Stock Exchanges, OTC securities. 1972-1982.	Portfolios formed from such NCAV securities had higher mean returns than the market benchmark. NCAV portfolios consisting of the securities of companies that had positive earnings but did not pay dividends had higher mean and risk-adjusted returns than the NCAV portfolios of companies with positive earnings that did pay dividends.
J. S. Bildersee, J. J. Cheh, A. Zutshi (1993)	Japanese market, 1975-1988.	They found the mean market-adjusted return of the aggregate portfolio to be around 13% per year.
Y. Xiao, G. Arnold (2008)	London Stock Exchange, 1980-2005.	Using this indicator almost twice higher return was reached than the market's, and a systemic risk fell between 0.5 and 0.6. The investment portfolio was made of a small number of companies so its volatility was higher than the market's.
T. Carlisle, S. Mohanty, J. Oxman (2010)	NYSE, AMEX, 1983-2008.	NCAV investment opportunities are more abundant after the market has performed badly, and the returns afforded by the NCAV portfolios outperform the market as the economy recovers. The performance of the NCAV rule is apparently not a feature of a small firm or value effect, nor is it explained away by a higher market risk.

Source: created by the author.

Table 2 shows the results of the empirical research, where the researchers analysed the particular components of assets and profit strategy. The empirical studies have shown that the use of the particular criteria, evaluating the profit and assets for the selection of the securities improved the investment portfolio results.

Conclusions

The financial system is sustainable when its participants can withstand shocks, manage financial risk and effectively carry out their activities. Inadequate risk management leads to losses of the financial institutions, insolvency and other problems, which spread causing other financial institutions'

losses. The collapse of the financial markets results considerable losses for both, investors and the state, which is forced to involve with the taxpayers' money. The financial crisis has shown that many participants of the financial system insufficiently measure risk, so the an important trend of the scientific research is the development of alternative methods for risk measurement.

It is therefore important to look for alternative methods to help measure and reduce risk. One of these methods is the application of the analysis of the fundamental indicators for risk measurement. Fundamental analysis is based on the strategy of value investment. Value investors seek for the true value of the company but the market is characterized

by volatility, so investors must require the margin of safety for each investment they perform. The margin of safety helps avoid losses that arise due to human error, failure, volatility and unpredictable and rapidly changing world.

Benjamin Graham offered ten fundamental criteria for the evaluation of the margin of safety. Five of these criteria are applicable for the measurement of the return. They are sensitive to changes in share price and earnings. The other five criteria measure risk and are not sensitive to changes in share price or earnings.

Review of the empirical studies has shown that the application of these criteria for the formation of the investment portfolio at different times and in different markets improved its results. Nevertheless, there is a risk to define the actual margin of safety. Company value in different sectors is calculated differently, so one criterion or their scope is not suitable for all companies. Thus, companies can be overestimated or underestimated. Considering that fact, the margin of safety is appropriate to be used as an additional method for risk measurement and mitigation.

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Brazauskas, M.

Alternatyvūs rizikos vertinimo metodai: saugumo ribos teoriniai aspektai

Santrauka

Efektyvus rizikos valdymas yra viena iš pagrindinių finansinių institucijų sėkmės priežasčių. Netinkamas rizikos vertinimas ir metodikų parinkimas padidina finansinių institucijų nuostolių, nemokumo ar kitų problemų tikimybę; tai savo ruožtu lemia kitų finansinių institucijų nuostolius. Finansų rinkų griūtis padaro didelių nuostolių tiek investuotojams, tiek valstybei, kuri yra priversta įsikišti ir naudoti mokesčių mokėtojų lėšas. 2008 m. pasaulinė finansų krizė ir po jos kilusi bankų krizė atskleidė finansų sistemos tvarumo silpnumą. Netinkamai įvertinus riziką, nuostolių patyrė ne tik investuotojai ir bankai, bet ir paprasti mokesčių mokėtojai, kurių lėšomis buvo sprendžiamos bankų ir kitų finansinių institucijų problemos.

Kapitalo rinkų plėtra ir konkurencija tarp investicinių portfelių valdytojų mokslininkus skatina ieškoti efektyvesnių rizikos įvertinimo metodų. Plačiausiai yra naudojami kiekybiniai metodai, besiremiantys istoriniu kainų judėjimu. Kiekybinių rizikos vertinimo metodų priimtumas ir jų įvairovė neužtikrina efektyvaus rizikos vertinimo ir valdymo. Tai skatina ieškoti alternatyvių rizikos vertinimo ir mažinimo metodų.

Vienas iš plačiausiai naudojamų rizikos vertinimo kriterijų yra standartinis nuokrypis – simetrinis rizikos vertinimo kriterijus, kurio dydis nepriklauso nuo to, ar grąža yra teigiama, ar neigiama. Tačiau, siekiant geresnių investicinio portfelio rezultatų, svarbu sumažinti nuosmukio riziką ir padidinti pelno tikimybę. Nuosmukio riziką galima sumažinti ne tik apskaičiuojant šią riziką įvertinančių kriterijų optimalias reikšmes, bet ir atsižvelgiant į įmonės finansinę būklę, turtą, pelną bei kitus kriterijus. Kyla klausimas, kokie yra galimi fundamentalieji rizikos vertinimo kriterijai ir kaip juos galima pritaikyti norint įvertinti investicinio portfelio riziką.

Tyrimo objektas – rizikos vertinimo kriterijai.

Tyrimo tikslas – išnagrinėti fundamentalųjų rizikos vertinimo kriterijų aspektus ir empiriniais tyrimais pagrįsti šių kriterijų taikymo siekiant įvertinti riziką ir ją sumažinti galimybes. **Tyrimo uždaviniai:** susisteminti ir apibendrinti mokslinėje literatūroje pateikiamą alternatyvų rizikos vertinimo poreikį bei prielaidas; pagrįsti pasirinktos rizikos vertinimo strategijos taikymo galimybes. Siekiant tyrimo tikslo ir uždavinių įgyvendinimo, taikomi tokie

metodai: mokslinių šaltinių analizė, sintezė, apibendrinimas.

Svarbi mokslinių tyrimų kryptis yra alternatyvių rizikos vertinimo metodų, galinčių padėti įvertinti ir sumažinti riziką, paieška. Vienas iš šių metodų yra fundamentalųjų rodiklių analizės taikymas atliekant rizikos vertinimą. Fundamentaliojoje analizėje paremta vertės investavimo strategija, kurios pradininkais laikomi Benjaminas Grahamas ir Davidas L. Doddas. Jų knyga „Security Analysis“ vadinama vertės investuotojų Biblija. Kaip šios knygos leidime teigia S. A. Klarmanas, „vertės investavimas yra toks pat, koks buvo B. Grahamo ir D. L. Doddo laikais: tai praktika, kai vertybiniai popieriai ar kitas turtas yra perkami už mažesnę kainą, nei jie iš tikro verti“. Investavimas į paprastas akcijas remiasi triguba koncepcija: patikima ir nusistovėjusi dividendų grąža, stabilus ir reikiamas pelningumas, patenkinama materialiojo turto būklė. Norint įvertinti šiuos tris veiksnius, analizuojama įmonės dividendų mokėjimo istorija, pelno (nuostolių) ataskaita, balansas.

Vertės investuotojai ieško tikrosios įmonės vertės. Ši strategija remiasi prielaida, kad vertybinių popierių rinkos kaina yra didesnė arba mažesnė nei tikroji įmonės vertė, todėl ilguoju periodu akcijos kaina bus linkusi grįžti prie tikrosios įmonės vertės. Įmonės tikroji vertė nustatoma naudojant kiekybinius metodus. Šie metodai padeda sumažinti bendrą analizuojamų įmonių skaičių. Pirmoji vertės investavimo forma yra pasyvi atranka, kai įmonės atrenkamos atsižvelgiant į mažus santykinius P/E, P/B kriterijus, mažą riziką ir kitus veiksnius. Antroji vertės investavimo forma pasižymi rinkos krypties analize. Analizuojama ir investuojama į įmones, kurios yra nemėgstamos kitų investuotojų, pasižymi prastu praeities efektyvumu ar blogomis naujienomis. Trečioji forma – tai aktyvi vertės investavimo forma. Ši forma pasižymi tuo, kad įsigyjamos nuvertintos, neefektyviai valdomos įmonės, kurių vertė padidinama jas reorganizavus, pertvarkius jų valdymą.

Rinkos pasižymi nepastovumu, todėl investuotojai privalo reikalauti kiekvienos jų atliekamos investicijos saugumo ribos. Geriausias būdas įvertinti vertybinių popierių saugumo ribą yra detali jų analizė. Saugumo riba

pasiekama, kai vertybiniai popieriai perkami už mažesnę kainą, nei yra įmonės tikroji vertė, siekiant išvengti nuostolių, galinčių atsirasti dėl žmogiškųjų klaidų, nesėkmių ar kintamumo, susidarančių dėl nenuspėjamai ir greitai besikeičiančio pasaulio. Supaprastinta saugumo ribos idėja yra vertybinių popierių įsigijimas už du trečdalius ar mažiau jų vertės.

B. Grahamas pasiūlė dešimt fundamentaliųjų kriterijų investicijų saugumo ribai įvertinti. Penki (akcijos pelningumas, akcijos kainos ir pelno, tenkančio akcijai, santykis, dividendinis pajamingumas, akcijos kainos ir buhalterinės vertės santykis, akcijos kainos ir grynojo trumpalaikio turto santykis) iš šių kriterijų skirti investicijų gražai įvertinti. Šie kriterijai yra jautrūs akcijos kainos ir pelno pokyčiams. Kiti kriterijai (finansinės struktūros, pelno augimo indikatoriai) įvertina įmonės finansinį sta-

bilumą ir riziką. Šie kriterijai nėra jautrūs akcijos kainos ar pelno pokyčiams. Akcijų vertė ir būsima graža priklauso nuo priimtinos veiklos efektyvumo ir stabilios finansinės struktūros.

Empirinių tyrimų apžvalga parodė, kad šių kriterijų naudojimas formuojant investicinį portfelį skirtingais laikotarpiais ir skirtingose rinkose pagerina jo rezultatus. Nepaisant to, neišvengiama rizikos dėl tikrosios saugumo ribos nustatymo. Skirtingų sektorių įmonių vertė apskaičiuojama skirtingai, todėl vienas kriterijus ar dydis netinka visoms įmonėms. Taip įmonės galima pervertinti arba nuvertinti. Atsižvelgiant į tai, saugumo ribą yra tikslinga taikyti kaip papildomą rizikos vertinimo ir mažinimo metodą.

Pagrindiniai žodžiai: saugumo riba, vertės investavimas, investicinė rizika, akcijos.