Systemic Risk, Specific Risk and the Risk of Company's Growth

Anna Pyka [1], Monika Wieczorek-Kosmala[2]

Abstract

In theory of contemporary corporate finance it is widely assumed that the main purpose of company's existence is to create the growth of its market value which is in accordance with the growth of value for the company's owners. Activities that a company undertakes in order to achieve such a growth are exposed to risk. This study aims at developing model interactions between so called systemic and specific risk of a company in the context of their impact on the risk of growth. The distinction of systemic and specific risk is underpinned on the source of risk – the systemic risk is raised by exogenous factors whereas specific risk by endogenous factors.

Key words

Systemic risk, specific risk, sources of risk, company's growth

JEL Classification: D81, G32

1. Introduction

A company's growth is associated with the processes that allow both qualitative and quantitative changes in a company, that follow systematically, in an ordered sequence, are relatively stable and lead to the growth of company's market value. These processes remain under the influence of the changes of company's business environment (exogenous factors) as well as under the influence of the company's decisions (endogenous factors).

Both exogenous and endogenous factors should be treated as sources of risk in company's activities. Risk, however, remains ambiguous concept as there are many, often contradict, definitions of risk. Most recognised definitions of risk were provided by A.Willet and F.Knight. A.Willet in 1901 defined risk as „the objective correlative of the subjective uncertainty" and as an "uncertainty considered as embodied in the course of events in the external world" (Willet, 2002, p.29). F.Knight in his definition tried to contradict a commonly followed association of the term "risk" and "uncertainty". He defined risk as a measurable uncertainty and indicated that the term "uncertainty" should be limited to the cases of non-quantitative types of events (Knight, 1964, p. 19-20). The current approaches to defining risk drive upon Willet's and Knight's concepts. For instance, Culp (2001, p. 14) defines risk as "any source of randomness that may have an adverse impact on a person or on a corporation", Carrol (2010, p. 9) says that the risk is the "possibility of suffering harm or loss", Rejda (2001, p.42) defines risk as "the uncertainty concerning the occurrence of loss". In financial literature risk is being defined as the variation of outcomes around expectations (compare: Young, Tippins, 2001, p. 7; Banks, 2002, p.1), which is in accordance with Knight's concept. From a corporate finance perspective, risk is being defined as a threat that a company will not

[1] Anna Pyka, Ph.D., Assistant Professor, Department of Finance, Faculty of Finance and Insurance, University of Economics in Katowice, email: anna.pyka@ue.katowice.pl.
[2] Monika Wieczorek-Kosmala, Ph.D., Assistant Professor, Department of Finance, Faculty of Finance and Insurance,University of Economics in Katowice, email: m.wieczorek-kosmala@ue.katowice.pl.

achieve its corporate objectives (Harris-Jones, Bergin, 1998, p. 72), which addresses the achievement of growth as well. It is worth noticing, that the study of definitions and approaches to risk leads to conclusion, that two concepts of risk exist: a negative concept, where risk is associated with a threat and a loss, and a neutral concept, where risk is perceived both as a threat and as an opportunity (Jajuga, ed., 2009, p.13).

The paper focuses on a broadly understood systemic and specific risk and adopts the negative concept of risk. The purpose of the paper is to develop a model of interactions between systematic and specific risk in the context of company's growth risk. In particular, the paper aims at justifying the thesis, that the interaction of exogenous and endogenous factors raises the risk of growth and may finally lead to company's bankruptcy.

The paper is kept in a narrative tone and the methodology is based on conceptual analysis of the current state of affairs provided in literature. The remainder of the paper is organised as follows. In section two the problem of the understanding of specific risk is developed, whereas specific risk is outlined in section three. In section four the model of specific and systemic risk interaction is developed, together with their implications for the growth risk. Section five concludes briefly the study.

2. Systemic risk

The systemic risk is the risk risen by the company's environment and is caused by the exogenous factors. The distinctive feature of systemic risk is that the risk (exogenous factors) affects all companies and thus cannot be controlled by any of these. The exogenous risk factors are created by the natural forces or economic conditions. The systemic risk creates changes in the macroeconomic surrounding of a company and then spreads to the microeconomic surrounding of a company and affects its market transactions. Thus, among the core elements of systemic risk the macroeconomic risk and the market risk is being distinguished (compare: Łukasik (ed.) 2004, p. 29; Kwiatkowski, 1998, p. 22). These relations are provided in Figure 1.

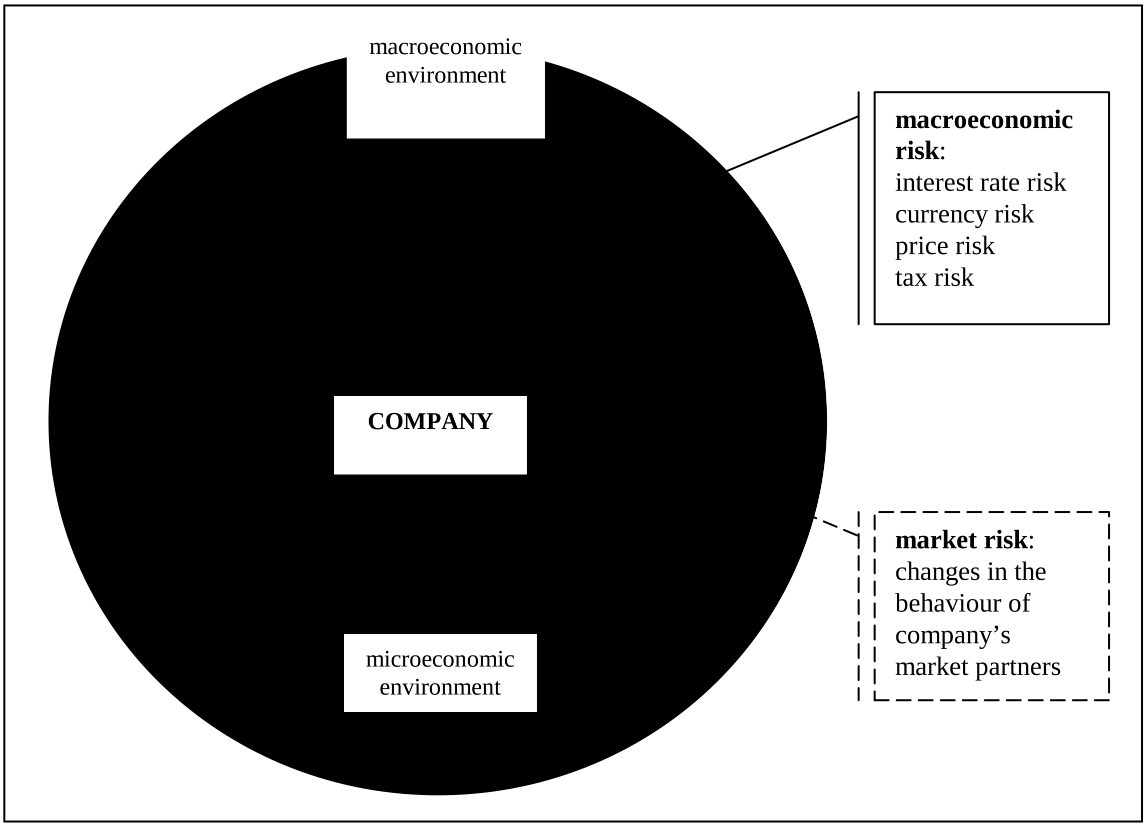
The macroeconomic risk is linked to the changes of numerous economic, social, legal and political conditions. In particular, it is caused by the following circumstances:

- the changes of monetary policy that causes the volatility of interest rates and other prices in the economy,
- the changes of the economic climate that causes the volatility of company's market conditions,
- the changes of fiscal policy and state economic policy that causes the volatility of tax rates and tax rules.

These factors allow distinguishing four key types of macroeconomic risk that are often a subject of deeper literature studies: (1) the interest rate risk, (2) the currency risk, (3) the prices risk, and (4) the tax risk.

The interest rate risk is connected with the volatility of interest rates that inflict the cost of capital for a company. The constant interest rates for a company in terms of an upward interest rates tendency are beneficial for company's liabilities, but unprofitable for the amounts due. From the company's growth perspective the interest rate risk is particularly relevant if it gives rise to the increase of financial costs and diminishes revenues on financial transactions.

Figure 1: Company's macro- and micro- business environment and the elements of systemic (exogenous) risk



Source: Own elaboration.

The currency risk is relevant not only for companies operating internationally but also for these that compete with foreign entities. In particular, the companies that are importers and exporters are heavily exposed to the currency risk. As a consequence, the currency risk may reduce their revenues and assets' volume or increase their costs and liabilities volume, which negatively influences the created value. The currency risk may also influence the financial cost if the company is borrowing funds denominated in foreign currency.

The prices risk is created by the volatility of supply and demand forces due to changes of economic conditions. The main source of risk is the volatility of the prices of both offered and ordered goods and services as a result of economic downturns or inflation. Economic downturns may also determine terms of transactions with regard to the volatility of quantity of supplies and orders.

Tax risk is caused by the changes of tax rates and tax rules. Tax risk influences the level of households' revenues and demand (and thus may affect their purchase decisions), and the changes of the burden of taxes in companies. The political and fiscal instability may lead to the higher level of tax risk.

The market risk determines the competitive power of a company and its position on the market. Market risk is created by the changes in the microenvironment of a company, so primarily by the decisions of capital providers, customers, suppliers and employees. As mentioned previously, these decisions often are under the pressure of the changes in macro-environment of a company. If competitive, a company may better react to the market risk.

3. Specific risk

Company's macro- and micro- business environment is very dynamic which means continuous changes of core decisive parameters. For a company, anticipation of these changes is difficult as the occurrence of these changes causes internal disturbances. Particularly, a demanding task is to operate in a turbulent business environment which is characterised by rapid changes. Ansoff (2007, p. 55-65) indicated a few characteristics of the contemporary business environment. We observe a decrease of the predictability of the changes, the increase of the novelty of the changes and the increase of violence and complexity of the changes. These phenomena influence the competitive power of a company as they result in (Penc, 1999, p. 24):

- the entrance of new competitors,
- bankruptcy of the current competitors,
- constant changes of the goods and services due to innovations (as the current technology becomes outdated),
- rapid social changes, in this the behaviour of households that are potential buyers of offered goods and services,
- changes of government decisions that are difficult to anticipate, in this new law regulations and tax regulations.

Undoubtedly, the business environment of the contemporary companies is turbulent. The consequences of the latest global financial crisis provide here a valuable example. Additionally, companies operate in terms of constant advances of technology and the increase of the complexity of information.

Specific risk, also referred to as firm risk, non-systemic risk or individual risk, is risen by internal endogenous factors that are in power of a company. The risk increases if the company fails to react properly to the changes of the business environment it operates in (so the results of systemic risk). In particular, the failures in management style, planning, organisation, motivation and control are responsible for the increase of specific risk. The companies simply make mistakes e.g. in shaping their capital and assets structure, production and cost structure, selection and training of employees, accessing and then using information etc.

The specific risk increases not only if the company reacts wrongly to the changes of its business environment, but also if it does not react at all. If a company is able to anticipate the changes in the environment and then takes appropriate actions, the specific risk may be significantly reduced.

It is worth noticing that the problem of specific risk is present in the literature connected with risk management. Specific risk is associated with so called operational risk which is the risk of loss that may result from:

- non-sufficient or wrong internal processes (accidents and losses caused by the failures in internal processes),
- human errors (deliberate or non-deliberate human errors, lack of competences, insufficient staff),
- technology (accidents and losses caused by the failures in information or telecommunication systems),
- reaction to external events and incidents.

In such risk taxonomy, specific (operational) risk is placed together with market risk, credit risk, liquidity risk and legal risk (Banks, 2002, p. 1-6; Banks and Dunn, 2003, p. 15-24; Culp, 2001, p. 16-25; Chapman, 2006, p.285-393). This approach is widely adapted in financial sector, however it matches non-financial sector as well. It highlights that the way in which a company is organised and prepared for external events may be a significant source of risk.

The specific risk of a company is also referred to as non-diversifiable risk. It means that companies differ with the level of specific risk, whereas systemic risk – as mentioned previously – is touching each company in the same way. Thus, investors (companies' owners) may diversify their portfolio to reduce the specific risk of a business, whereas systemic risk remains the same.

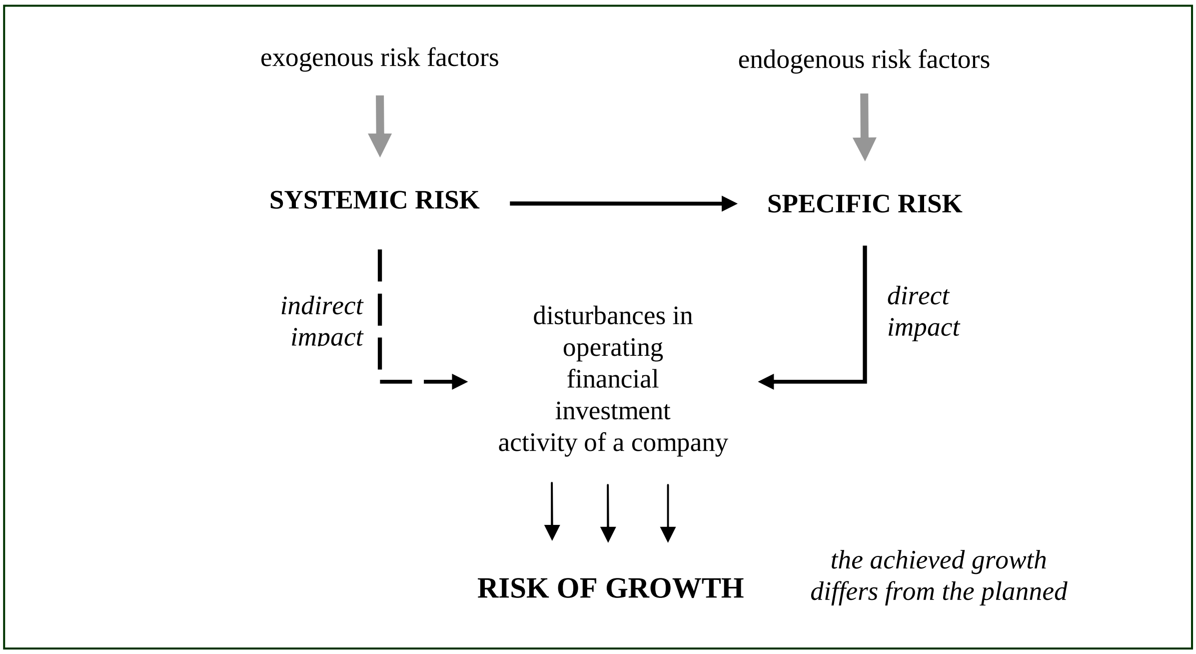
The specific risk depends on the complexity of a company and its current life cycle stage. The higher the complexity of a company, the higher is the specific risk. The specific risk is also high in young and mature companies. Young are lacking of experience and thus are more prone to wrong decisions. However, mature companies often do mistakes as many operations, activities, decisions and processes are treated as routine.

4. The risk of growth in terms of systemic and specific risk interactions

Assuming that the growth of a company is associated with the growth of its market value (and thus the value for company's owners) a model of the joint impact of systemic and specific risk on company's growth may be developed. The risk of growth increases, if the systemic and specific risk leads to disturbances in creating the expected level of company's market value.

As presented in Figure 2., the systemic risk affects a company in an indirect way. Exogenous risk factors have power to change overall conditions of company's activities. Systemic risk causes that a company is unable to anticipate properly the results of decisions taken. As a consequence, the decisions company takes may lead to the effects that are remote as compared to the planned. Systemic risk influences also the level of specific risk. The way in which company reacts to the changing conditions influences the specific risk. The specific risk itself affects a company directly as the reaction to risk influences the results of decisions taken.

Figure 2: The model of systemic and specific risk interactions in terms of company's growth



Source: Own elaboration.

The impact of systemic and specific risk influence the way in which company is managed within its operating, financial and investment activities. Operating activities are focused on the current effects of decisions taken. The risk within operating activities is associated with the risk of not achieving the planned level of operating profit (in particular EBIT – *Earnings Before Interests and Taxes*). Such a situation may occur if a company will not achieve the planned revenues and/or will be forced to cover operating costs higher than expected (Brigham, Houston, 2009, p. 146-148). In particular, within the systemic risk sphere, the risk of achieving operating profits lower than expected arises if: (1) a company is operating in terms of demand fluctuations, (2) sales' prices or delivery prices are volatile and (3) the burden of fixed costs is high. Within the specific risk sphere, the risk of operating profit arises if a company is unable to adjust sales' prices to volatility of delivery prices and has no possibility to implement product innovations.

Financing activities are connected with shaping a company's capital structure. It raises the risk of potential problems with paying back debts with interests. It is a common knowledge, that in such a situation companies are exposed to liquidity and solvency risk, which may finally lead to bankruptcy. Within the sphere of systemic risk, financial risk arises if company faces the increase of cost of capital (interest rate risk), an access to equity is limited (and thus companies tend to borrow) or an access to bank loans is limited (e.g. due to restrictions posed by central bank monetary policy). Within the sphere of specific risk, the financing risk is intensified if a company is unable to adjust capital structure to assets structure (which is determined primarily by the branch) and faces the reduction of profitability (which means less profit to investors and limited possibilities to fulfil the obligations aroused from the burden of debt to be repaid).

Investment activities are related to investment projects a company undertakes in order to increase its market power and competitiveness. While undertaking an investment, a company assumes that the return on the capital invested will be higher than the cost of capital involved. In such circumstances, the project has a power to increase the growth of a company and to bring added value for the capital providers. However, there is a risk that the return on capital invested will be lower than planned, which is often referred to as investment risk (Rajzer, 2001, p. 209). In the sphere of systemic risk, the investment risk may arise if any of the operating profit or financing risk factors occur or there will be a coincidence of these. Any mistakes a company will make while planning and completion of the investment increase the investment risk as well.

All the disturbances within operating, financing and investment company's activities influence the risk of company's growth. It is worth noticing that if a company achieves the growth lower than expected, the owners are dissatisfied. If such a situation lasts for a longer period it is possible that the owners will take a decision about withdrawing their capital contribution and terminating a company. The disturbances within operating, financing and investment company's activities may also lead to company's bankruptcy. Wrong decisions (specific risk) due to changing business environment (systemic risk) may lead to sudden crisis situations due to the danger of illiquidity. A company may take hectic decisions being focused only on one critical area of decision making, which may lead to further negative consequences.

5. Conclusions

The approaches to analysing the problem of risk in a company, including the risk of growth, may differ as there are many approaches to define the risk. However, this study provides some arguments that the problem of risk of growth is a complex one. Companies are operating in turbulent business environment which raises their systemic risk. Additionally, they are exposed to the consequences of their decision-making processes, which may be simply wrong. The coincidence of systemic and specific risk in a company raises significantly the risk of growth as the risk of potential dysfunctions in operating, financing and investment activities rises as well.

It is worth noticing that it is very difficult to analyse the impact of a specific element of systemic or specific risk on company's growth. In other words, a company is unable to clarify how a single exogenous risk factor affected its growth, as the exogenous risk factors coincide. Additionally, the way in which a company reacts to the presence of particular exogenous risk factors will have a final impact on its growth. The interaction between systemic and specific risk, resulting from both exogenous and endogenous factors, makes the growth risk analysis far more difficult.

References

[1] Ansoff, H. I., 2007. *Strategic Management*. New York: Palgrave Macmillan.

[2] Banks, E., 2002. *The Simple Rules of Risk*. Chichester: John Wiley & Sons.

[3] Banks, E. and Dunn, R. 2003. *Practical Risk Management. An Executive Guide to Avoiding Surprises and Losses.* Chichester: John Wiley & Sons.

[4] Brigham, E.F. and Houston, J.F., 2009. *Fundamentals of Financial Management*. Australia: South-Western Cengage Learning.

[5] Carroll, T., 2010. *A Holistic Approach to Business Risk Management*. In: *Approaches to Enterprise Risk Management,* (ed). London: A&C Black.

[6] Chapman, R. J., 2006. Simple *Tools and Techniques for Enterprise Risk Management.* Hoboken: John Wiley & Sons.

[7] Culp, C., 2001. *The Risk Management Process. Business Strategy and Tactics*. New York: John Wiley & Sons.

[8] Harris-Jones, J. and Bergin, L., 1998. *The Management of Corporate Risk. A Framework of Directors*. London: Association of Corporate Treasurers.

[9] Jajuga, K. (ed.), 2009. *Zarządzanie ryzykiem*. Warszawa: Wydawnictwo Naukowe PWN.

[10] Knight, F.H., 1964. *Risk, Uncertainty and Profit*. New York: Sentry Press.

[11] Kwiatkowski, P., 1998. *Analiza ryzyka kredytowego towarzyszącego finansowaniu przedsięwzięć inwestycyjnych na zasadach project finance*. Materiały i Studia nr 69, Narodowy Bank Polski, Warszawa.

[12] Łukasik, G., ed., 2004. *Strategie finansowania przedsiębiorstwa w sytuacjach ryzykownych*. Katowice: Wydawnictwo Akademii Ekonomicznej w Katowicach.

[13] Penc, J., 1999. *Innowacje i zmiany w firmie*. Warszawa: Agencja Wydawnicza Placet.

[14] Rajzer, M., 2001. *Strategie dywersyfikacji przedsiębiorstw*. Warszawa: PWE.

[15] Rejda, G.E., 2001. *Principles of Risk Management and Insurance*. International Ed.: Addison Wesley Longman.

[16] Young, P. and Tippins, S., 2001. *Managing Business Risk. An Organization-wide Approach to Risk Management*. New York: American Management Association.

[17] Willet, A.H., 2002. *The Economic Theory of Risk and Insurance*. Honolulu: University Press of the Pacific (reprinted from 1901 ed.)