

RISK MANAGEMENT OF INVESTING IN FINANCIAL INSTRUMENTS

Jacek Stasiak¹

¹Ph.D., Associate Profesor, „Herbrand” Centrum Medyczne NZOZ w Aleksandrowie Łódzkim
e-mail: jacek_stasiak@interia.pl

Abstract: The purpose of the article is to present issues related to financial risk management and show how important this problem is. Currently, financial risk management is based on the experience of the last several years, mainly on the consequences of the induced economic crises. Progressive globalization contributes to the fact that financial market risks cannot be considered only from the perspective of one country, because what happens in the world will sooner or later reach every country, due to the growing interdependence between markets.

Keywords: risk management, financial sector, asset value, investors.

1. Introduction

The basis for the proper functioning of any country is the financial sector. It is the pillar of any economy, so it is important to reduce or eliminate risks that may have negatively affected its operation. Risk has always accompanied the financial market and it is not a problem that can disappear, on the contrary, it is constantly increasing.

Investors deciding to invest their accumulated savings in financial instruments must familiarize themselves with the risks that accompany them. This knowledge is essential for investing in the financial market because each of its transactions contains elements of risk. Nowadays, one of the economic and financial issues that is developing very rapidly from the theoretical side is financial stability and the accompanying term systemic risk, which is otherwise known as financial system risk. The reasons for this interest in financial risk were events whose negative effects affected the economy as a whole and households in particular. Also, the increase in the value of assets managed by financial institutions and the links between them have contributed to a broader view of financial risk.

Risk management are all activities aimed at identifying, assessing and controlling risks to reduce their activities, as well as control of the actions taken to reduce risks.

2. The concept of risk and its division

Every action taken and decisions made take place under conditions of uncertainty, since the future may not always coincide with expectations. This uncertainty, as well as the incompleteness of the information we have about the conditions for strategic and operational decisions, makes every business activity subject to risk. The concept of risk accompanies man in all walks of life including business activities. Risk is a concept with many meanings, there is no single universal definition of it. Most often, risk is equated with danger, uncertainty, loss, probability of undesirable events or potential outcome. All these terms are elements characteristic of risk, but individually they do not explain the phenomenon only through the interrelationships between the various elements and the interactions are the basis for defining risk.

Defining the term risk was undertaken in the 1920s by F.H. Knight, he distinguished risk from uncertainty. According to Knight, risk is "measurable uncertainty", at the same time he stressed that uncertainty *sensu stricto* is unmeasurable [Knight, 1964, p. 20]. The moment there is a possibility of measurement is when uncertainty becomes risk. It follows that risk is a narrower category than uncertainty. The appearance of risk is highly dependent on the attitude of the subject who acts under uncertainty. With the subjective determination of the probability comes to a decision, this causes the subject to already act under conditions of risk. Thus, we can speak of risk when the effects of the existence of uncertainty about a certain variable directly or indirectly affect the situation of the entity under consideration, that is, uncertainty is therefore a source of risk [Staniec, 2015, p. 12]. With an increase in uncertainty, there is an increase in the probability of achieving a result that is not what was expected. It follows that risk is uncertainty, which can be measured, for example, by probability. Risk and uncertainty refer to the future.

Based on Knight's definition, H. Markowitz developed portfolio theory, in which he defined risk as "the variance of returns, while pointing out that it is an undesirable phenomenon for investors" [Markowitz, 1952, p. 77-91]. Risk, which is expressed by statistical measures (variance), emphasizes the measurability of this phenomenon and its neutrality (lack of limited only to negative consequences) [Staniec, 2015, p. 13].

According to T.T. Kaczmarek, risk is a set of factors or activities that cause damage or material loss, its characteristic is the uncertainty of its consequences [Kaczmarek, 2006, p. 52].

This means that risk is associated with the possibility of failure, and in particular with the possibility of the occurrence of events beyond the control of the acting entity, which it cannot predict or fully prevent, and which, by reducing useful results or increasing expenditures, deprive the action completely or partially of the characteristic of effectiveness, advantageousness or economy [Kaczmarek, 1999, p. 11].

L. Pritchard, on the other hand, defined risk as "the cumulative effect of the probability of uncertain events that may favorably or unfavorably affect the performance of a project" [Pritchard, 2002, p. 7].

Risk functions in a negative sense as well as in a positive sense, and refers to the effects of risk. Risk in the negative sense is the danger associated with the failure to achieve the goal that was adopted in making the economic decision [Rogowski, Michalczewski, 2005, p. 11], is also the probability that the current amount of return on investment may be different from the amount that was expected. It is assumed that the defining characteristic of risk is that it describes recurring events that occur cyclically or as a result of the information held quantifiable [Nahotko, 2001, p. 36].

The most general division of risk can be made into [Jajuga, 1996, p. 99]:

- inherent risk - it operates according to the law of large numbers are, for example, natural disasters,
- subjective risk - it is due to the fact that a person can imperfectly predict his action, for example, mispredict the market situation,
- objective risk, is related to the impossibility of predicting certain developments e.g. scientific discoveries in the future.

There are different ways and methods of dividing risk and its assessment is the result of the fact that it is an ambiguous concept. From the portfolio theory comes the basic division of risk from the point of view of the investor, it can then be divided into systematic risk and specific risk [Culp, 2001]. Systematic risk has the characteristics of market risk, it arises from events that are outside the control of the economic entity affected. This is a type of risk closely related to the economic conditions that are in a particular country, region. The factors that affect this type of risk include, among others, interest rates, inflation, exchange rates, the market, purchasing power, the political and economic situation. On the other hand, specific (non-systematic) risk is a type of risk that can be controlled by a business entity and the area that is within this range is the business entity's area of operation. The sources of this risk are the choice of financial instrument, competition, business, finance, management, liquidity, price change, reinvestment and bankruptcy of the business entity.

Within the framework of specific risk, the literature has identified such categories and divisions of this risk:

- pure risk and speculative risk; if the only alternative to the current state is the occurrence of loss (damage), such a situation is referred to as a case of pure risk, but if unknown future events can cause both losses and profits, such a situation is referred to as speculative risk [Dziawgo, 1998, p. 18],
- external risk - it is independent of the bank's policies, such as institutional risk [Nowak, 1999, p. 240],
- static and dynamic risk - in the case of static risk its existence is associated with natural phenomena and is not affected by technological progress, in contrast to dynamic risk, which is associated with changes in technology, are the result of civilization and economic or organizational progress,
- project risk - depends on the technical conditions of the implemented project, what works in one entity does not have to work in another due to the scale of operations and the type of [Tarczyński, Mojsiewicz, 2001, p. 16],
- risk of owners, which arises from the lack of interest of the owners in different directions of development of the company, this can lead to minimization of the risk of business activity,
- risk of the company - occurs when misjudging the company investing future market conditions.

In business, such risks as financial and non-financial risks are distinguished, both one and the other risks affect the results that can be achieved by the business entity. With financial risk there is a direct impact on the amount of profit or loss, it can be measured. With non-financial risk, there is an indirect exertion of impact on the company's performance, the impact cannot be measured - it can be political risk, for example.

Within the framework of financial risk, Christopher L. Culp distinguished five of its categories, these are [Culp, 2002, p. 168]:

- market risk - this is the risk that is a consequence of any fluctuations in the financial market, it is associated with changes in the values of assets, liabilities, revenues, costs and cash flows, it is the result of fluctuations in the prices of financial instruments or interest rates, prices. The essence of market risk is the connection with active markets. Within the framework of market risk, currency risk, interest rate risk and price risk have been distinguished,

- financial (financial risk), is the risk that arises from the stability of money, from exchange rate fluctuations, taxes, budget deficit and public debt, as well as from the financial policy pursued,
- market liquidity - directly relates to the financial engineering used, is associated with the difficulties that can be when converting assets into cash especially in the short term, and the loss of the ability to timely service current obligations,
- credit (default risk) associated with the likelihood of default by the counterparty, also called contractual risk, this is the risk most often affecting business entities,
- legal - is the risk of losses that result from the inability to enforce a contract that had guaranteed performance of the terms by the other party. Within this risk is the withdrawal from the execution of the swap contract by the other party to the contract.

Classifying risk in terms of time horizon, one can distinguish:

- operational risk - short-term, which is related to the activities of the entity,
- strategic risk - long-term, which is related to long-term decisions.

In practice, various risks are interrelated, such is the case with currency risk and credit risk and interest rate and credit risk. The causes of some of the risks can be internal or external, and in some areas there is at least some overlap.

There are many more types of risk in the literature, many of which are related to the risk of investing in financial instruments.

3. Stability of the Polish financial system and the risks associated with it

The Polish financial system is an autonomous system, a manifestation of this is caution in taking risky actions, as well as a high resistance to shocks that come from outside. Much of the credit for this goes to state institutions, which strive to maintain the stability of the Polish financial system.

If the financial system functions in a continuous manner and demonstrates efficiency, even in the event of disruptions of scale or unexpected events - this is a state of financial system stability. Any disruption in the financial system and the emergence of inefficiency in the provision of financial intermediation services translates into a deteriorating situation for business entities and households.

The Financial Supervisory Commission safeguards liquidity in the banking and insurance sectors and strengthens their capital positions. The Ministry of Finance supports

financial institutions and their recapitalization, which is a safeguard in case of threats to the Polish financial market. In order to improve cooperation between the Financial Supervision Commission and the National Bank of Poland and the Ministry of Finance, the Financial Stability Committee was established. The Financial Stability Committee is the competent body for macroprudential supervision in Poland. The Committee's primary tasks are to identify, assess and monitor systemic risks that arise either in the financial system or its environment.

Recent years have shown that in the history of the world and Poland, phenomena previously unknown have occurred, and could not have been predicted. Such an event was the crisis caused by the Covid-19 pandemic and the outbreak of war in Ukraine. These are events that caused a shock to aggregate demand and supply, and uncertainty emerged over the entire economy. These two events left their mark on the Polish financial system and threatened its stability.

Only thanks to state intervention, which occurred through fiscal, monetary and micro- and macro-prudential policy measures, was it possible to reduce the economic consequences of the pandemic [18]. At the beginning of the COVID-19 pandemic, the Financial Stability Committee issued a recommendation and the Minister of Finance rescinded a regulation that required banks to maintaining a systemic risk buffer of 3% of national risk exposure [15]. The stability of the financial system is largely influenced by the dynamics and balance within the overall economy. Based on historical experience and the emergence of so-called scarred beliefs and expectations of entrepreneurs, one can posit that long-term GDP growth and the natural real interest rate will be reduced. "Historical experience shows that after the epidemic there was a significant decrease in the dynamics of the economy, mainly as a result of reduced investment and increased savings" [18].

The war in Ukraine is having a huge impact on Poland's economy and financial system. Since the outbreak of the war in Poland, inflation has been rising rapidly, at the beginning of January 2022 it was - 9.2% and already at the beginning of May it was as high as 12.4%. The Monetary Policy Council, in order to curb this galloping inflation, decided to raise interest rates. The interest rate hike has an effect on exchange rates; the higher the interest rates, the more attractive the PLN becomes to investors.

The Polish currency is weakening, as capital due to geopolitical risks is flowing out and away from Poland, increasing risk aversion in a country where there is a lot of it. Investors are withdrawing their capital as uncertainty grows among investors due to the proximity of ongoing hostilities. Currencies such as the U.S. dollar, the euro, the Swiss franc and the yen, which is

returning to China [19], are strengthening. The weakening of the zloty contributes to Polish exports becoming competitive in the global market.

Since the outbreak of the war on the Polish financial market, there has been a preference for stocks over bonds in the portfolios of investment funds. Since the beginning of 2022, there have been discounts in stock markets and a visible increase in the yields of government bonds - a decline in their prices. Polish indices are becoming weaker and weaker. At the end of 2021, the yields on Polish government bonds in Polish currency rose significantly, they exceeded the levels that were quoted before the outbreak of the COVID-19 pandemic [13].

In order to minimize the interest rate risk, a recommendation was issued by the FSC and an opinion from the Financial Stability Committee and the Minister of Finance to replace the WIBOR index with an index that was indicated in the regulation. This is the indicator that the market for interest rate risk hedging instruments must have created [20].

4. Conclusion

Financial risk management is an issue that is gaining new importance, the perception of risk is changing, risks previously not present have arrived. Financial risk has always been underestimated based only on statistics and historical data, now the global situation should also be taken into account. Since what happens in the world will sooner or later be reflected in the domestic financial market, this is a result of increasing globalization. State institutions analyze the situation on an ongoing basis and make recommendations that should be applied by financial institutions to reduce risks.

The financial market offers many instruments and their degree of risk varies, with some having a high risk associated with others less, but there are none that were completely free of any risk. Therefore, before entering the financial market you should familiarize yourself with the risks that are associated with a particular instrument.

The smallest risk is associated with the government bond market, as they are guaranteed by the Treasury. Therefore, the share of government bonds in the structure of the financial market is steadily increasing. Treasury bonds are not exposed to progressive inflation and changes in interest rates as is the case with other financial instruments. Stocks are subject to a great deal of risk, especially in terms of specific risk, if shares of a particular company are purchased then the increase in their value depends on market success. This instrument is subject to interest rate risk and market risk because their price depends on the behavior of other investors.

A recent risk is event risk, concerning unexpected events that cannot be predicted in the long term - such an event is the Covid-19 pandemic and the war in Ukraine. The stability of the financial system depends on the institutions and organizations that make it up, and the extent to which they are able to prevent the occurrence of risks that will disrupt the clearing and financial intermediation system and prevent. These institutions must prevent the negative consequences that disruption of the financial system brings.

Bibliography

1. Culp C. L., *The ART of Risk Management: Alternative Risk Transfer, Capital Structure and the Convergence of Insurance and Capital Markets*, Wiley&Sons, 2001.
2. Culp Ch. L., *Art of Risk Management*, Wiley, Hardcover 2002.
3. Dziawgo D., *Credit rating. Ryzyko i obligacje na międzynarodowym rynku finansowym*, PWN, Warszawa 1998.
4. Iwaszczuk N., *Ryzyko w działalności gospodarczej: definicje, klasyfikacje, zarządzanie*, Wydawnictwo IGSMiE PAN, Kraków 2021.
5. Jajuga K., Jajuga T., *Inwestycje*, PWN, Warszawa 1996.
6. Kaczmarek T.T., *Ryzyko i zarządzanie ryzykiem ujęcie interdyscyplinarne*, wyd. Difin, Warszawa 2006.
7. Kaczmarek T. T., *Zarządzanie ryzykiem handlowym i finansowym dla praktyków*, wyd. Ośrodek Doradztwa i Doskonalenia Kadr, Gdańsk 1999.
8. Knight F.H., *Risk, Uncertainty and Profit*, Reprints of Economic Classics, Augustus M. Kelley, New York 1964.
9. Markowitz H.M., *Portfolio Selection*, Journal of Finance, 1952, 7.
10. Nahotko S., *Ryzyko ekonomiczne w działalności gospodarczej*, wyd. II uzupełnione, Biblioteka Menedżera i służby pracowniczej, Zeszyt 201, Bydgoszcz 2001.
11. Nowak A., *Wykorzystanie analiz controllingowych do zapewnienia bezpieczeństwa działalności banków komercyjnych*, w: *Banki polskie u progu XXI wieku – praca zbiorowa* pod red. W. L. Jaworskiego, Poltext, Warszawa 1999.
12. Pritchard C. L., *Zarządzanie ryzykiem w projektach. Teoria i praktyka*, WIG-Press, Warszawa 2002.
13. Raport o stabilności systemu finansowego, Narodowy Bank Polski, Departament Stabilności Finansowej Warszawa 2021.

14. Rogowski W., Michalczewski A., *Zarządzanie ryzykiem w przedsiębiorstwach inwestycyjnych. Ryzyko walutowe i ryzyko stopy procentowej*, Oficyna Ekonomiczna, Kraków 2005.
15. Rozporządzenie Ministra Finansów z dnia 18 marca 2020 r. uchylające rozporządzenie w sprawie bufora ryzyka systemowego, Dz. U. z 2020 r., poz. 473.
16. Staniec I., (red.), J. Zawila-Niedźwiedzki, *Ryzyko operacyjne w naukach o zarządzaniu*, C.H. Beck, Warszawa 2015.
17. Tarczyński W., Mojsiewicz M., *Zarządzanie ryzykiem*, PWE, Warszawa 2001.
18. <https://www.obserwatorfinansowy.pl/tematyka/rynki-finansowe/bankowosc/stabilnosc-systemu-finansowego-perspektywy/>[18.05.2022]
19. <https://marciniwuc.com/wojna-w-ukrainie-polska-gospodarka/> [18.05.2022]
20. <https://www.bankier.pl/wiadomosc/GPW-Benchmark-zaczyna-publicacje-codzienna-wskaznikow-referencyjnych-stopy-procentowej-8339897.html> [18.05.2022]