Practical Significance of Distinguishment between Systematic/Non-systematic Risks

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Abstract. This essay illustrates the help in distinguishing the systematic and non-systematic risks, through the detailed analysis on the key factors, characteristics of both systematic and non-systematic risks in the context of financial investment, based on the detailed clarification and analysis on these two risks, plus the actual cases to elaborate the typical cases concerning the two kinds of risks. It is concluded that the systematic risk has the features of inevitability, unpredictability and non-diversifiability, while the non-systematic risk has the opposite features of evitability, predictability, and most importantly the diversificability. Therefore, it is of great help for investors to distinguish these two risks, so that the investors could better hedge the risks by taking suitable countermeasures in constructing the investment portfolio, and ultimately achieve the balance point of risk and return. Last, by discussing the other approaches in understanding risks, it is concluded that although these perspectives are helpful for quantifying the risks, or for academic research, yet in the field of investment, the distinguish between systematic and non-systematic risk is still the basis of reasonable risk management.

Keywords: systematic risk, non-systematic risk, financial investment

1. Introduction

The conception of risk, refers to the potentiality, or the likelihood that a certain loss would occur in a given circumstance and within a given time period [1]. From the perspective of the common sense, risk is the probability of some unfortunate events occurring. Risk has some fundamental characteristics, such as objectivity, universality, necessity, identifiability, controllability, loss, uncertainty and sociability [2], which also endowed this conception various implications in different contexts. In one of its most commonly-used contexts, namely the financial investment field, risk can be deemed as the probability that certain financial losses, such as the investment loss, or credit default, would emerge. In financial sense of risk, the distinguish of systematic risk and non-systematic risk, has significant theoretical and practical implications. This essay analyzes the significance in distinguishment between two types of financial risks, based on the clarification of the content of both risks, along with the certain practical cases showing the characteristics. In addition, some alternative approaches in understanding risks in financial sense, would also be discussed, which further highlights the practical significance of the systematic/non-systematic perspective of risks.

The structure of this essay is set as follow: first, the clarification of the conceptions of two risks, are analyzed in details, plus the typical cases of risks to illustrate the characteristics of the risks. In addition, the practical significance of distinguishing two risks are discussed, so as to illustrate the help for investors to clearing distinguishing the risks. Moreover, the other alternative approaches to understand the risks, both scientifically and academically, are also discussed. At last, a comprehensive conclusion is made.

2. The Analysis of Systematic Risk

2.1 The Conception of Financial Systematic Risk

The financial systematic risk, refers to corresponding factors that affect the financial markets as a whole, such as the economic cycles, or the changes in national macroeconomic policies. These risks are inherent to the entire market or market segment. This kind of risk is so-called systematic, since the entire financial or market system would be affected by such risks, for example, the global financial crisis may impact the whole investment field so that none of the investors within the market could escape from the consequent losses.

2.2 The Factors of Systematic Risk

The sources of financial systemic risk are attributed by macro factors concerning the political, economic and social environment, namely the risks of policies, interest rate, purchasing power and market indexes. The mechanisms that these macro factors influence the entire financial system, and lead to the losses of investors who hold certain financial products, are illustrated as follow:

First of all, the economic policies and regulatory measures initiated by government departments and regulatory authorities, could result in the losses of financial products, this is particularly evident in emerging financial markets [3]. The change of economic policies would directly influence on the fluctuation of the company's profits and bond returns, and the changes in securities trading policies could have an intensive impact on the price of securities. Even some seemingly irrelevant policy changes, such as those regulate the transactions of real estate properties, may also indirectly affect the supply and demand for funds in the financial market, which is highly inter-connected with the operations of multiple industries of certain economy. Therefore, since the macroeconomic policies or regulations introduced or changed would have impacts on the overall status of economy, which further cause the transmission to financial markets, thus resulting in greater volatility in the market as a whole, and the participants of market.

Another key factor that attributed to the systematic financial risk is the level of market interest rate. For instance, in the securities trading market, the bonds and stocks are traded at their market prices instead of the face values, therefore the marketable prices, or the actual value of the financial products are highly correlated with the market interest rate level [4]. Generally speaking, when the market interest rate increases, the price of financial products would decrease, and vice versa, this trend of price movement is particularly prominent in the bond market, indicating the overall interest level constitutes as a variable that affect the whole market system.

Moreover, there are other macroeconomic factors that would lead to the uncertainty in the entire financial market, thus cause potential systematic risks. For instances, the inflation level of certain economy determines the purchasing power of the market participants [5]. In the trading markets of bond and security, since the returns on investment securities are paid in the form of money, in times of inflation, a decrease in the purchasing power of funds invested, which means a decrease in the real return on investment, will create the possibility of losses for investors. For another instance, the market risks, usually caused by some external factors, would result in the fluctuation of the prices. The market risk is usually deemed as the most common risk in securities investment activities, especially in emerging markets, the factors causing stock market fluctuations are more complicated with large price fluctuations.

2.3 The Characteristics of Financial Systematic Risk

Based on the factors discussed above, it is concluded that the financial systematic risk has the following characteristics. First of all, and most practically, the systematic risk is nondiversifiable, which means it could not be avoided by constructing the portfolio of financial products. For example, if the Federal Reserve reduces the interest rate to almost zero, which is a typical systematic change of policies, then all products that relied on interest as income will be affected. No matter how diversified the investment is, investors will be negatively affected. Second, the financial systematic risk is inevitable to some extent, since it is almost impossible to avoid the loss when the entire market is suffering from depression. Third, the systematic risk is unpredictable, as the external factors that effect on the market condition are unexpected, it would be difficult to identify the incoming risks beforehand.

2.4 The Typical Case

A typical case that perfectly illustrates the characteristics of financial systematic risk is the financial crisis brought by the COVID-19 pandemic worldwide. In 2020, the pandemic significantly impacted global financial markets and macroeconomics, with dramatic shocks in international capital markets and commodity markets [6]. The pandemic poses as a systematic risk for the financial market, since there were prevalent stock market falls worldwide. Due to the risk of COVID-19 pandemic, the stock market in mainland China saw an unprecedentedly violent shock while over 3,000 stocks , and the stock markets of several countries, including the United States and Brazil, also plunged in March 2020, with systemic financial risks spreading rapidly and cross-contaminating among international markets.

In this case, the macroeconomic factors play as the key roles in resulting in the systematic financial risk. First of all, the COVID-19 pandemic had negative impact on global macroeconomy, every major economy in the world had experienced a severe economic recession. In addition, the pandemic worsens the employment situation and reduces the income expectations of the residents, which leads to the transmission of negative economic shocks to the financial system [7]. In addition, the rapid spread of COVID-19 combined with lockdown and supply chain disruptions had exacerbated the uncertainty of global economic growth and fueled pessimistic market expectations, and the social and economic policies issued by authorities also intensify this trend. In summary, the unexpected outbreak of COVID-19 pandemic has systematically influence on the entire economy and financial market.

Therefore, the risk caused by COVID-19 Pandemic, whether in terms of market indices, economic situation or corresponding policies, has an overall impact on the whole market, and this risk cannot be hedged by anticipation and diversification, almost all investors in the financial market suffered from this risk, which is a typical systematic one.

3. The Analysis of Non-systematic Risk

3.1 The Conception of Non-systematic Risk

Unlike the systematic risk which would affect on the entire market or segment, the non-systematic risks basically have narrower influential sphere, as it is associated with a specific company or industry that is relatively independent of economic, political and other factors that affect all financial variables [8]. In context of financial market, the non-systematic risk usually reflected as the value changes of individual securities, which are closely related to the operating performance and significant events of listed companies. Factors concerning the company's management, financial position, marketing and sales, major investments and other factors could all affect the share price movement, thus lead to the emergence of non-systematic risks.

3.2 The Factors of Non-systematic Risk

The non-systematic risk in financial investment context refers to the occurrence of uncertainties in a particular company, or the companies in certain industry, that could affect the companies' share prices, resulting in losses for investors who hold the underlying stocks and securities. Since the non-systematic risk generally occur at the company level, various micro factors may result in such risk.

The most common factor in resulting the non-systematic risk is the risk related to company operation, which refers to the losses to investors as a result of poor business performance, management, or even failure or collapse of certain company [9]. Changes in the companies' operations, production and investment activities, resulting in changes in the company's earnings, which may result in the losses of investors. Various variables could result in the operational risk of companies, such as the prosperity or depression in certain industries, the quality of management, and the business of competitors. When the companies, especially those listed companies in financial market show declines in their performance and financial indicators, it would usually lead to the decline in their share prices, or even the direct credit default, thus bring losses to investors.

A specific form of company's operational risks is the corporate financial risk, which refers to the problems of the raising of funds, and the company may lose its solvency. The main factors that create corporate financial risk are the capital-liability ratio, the maturity of assets and liabilities, and the debt structure [10]. Generally speaking, the higher the capital to debt ratio and the more unreasonable the debt structure of a company, the greater its financial risk. Investors should pay particular attention to the analysis of a company's financial risk when investing, as a way to avoid such non-systematic risk.

Another typical form of non-systematic risk that investors usually face is the credit risk, also known as the default risk, refers to the possibility of failure to pay principal and interest to security holders on time, also resulting in losses to investors [11]. Therefore, the professional investors tend to conduct detailed evaluation on the credit rating of the bonds issued and the listed companies, so as to avoid such risk.

At last, the moral risk of the companies' management could also trigger the non-systematic risk. The shareholders and managers of listed companies are in a principal-agent relationship [12]. Since managers and shareholders pursue different goals, especially in the case of information asymmetry between them, the managers' actions may also harm shareholders' interests [13].

3.3 The Characteristics of Financial Systematic Risk

Based on the factors discussed above, it is evident the non-systematic risk in finance or investment context has the absolute contrary characteristics, compared with the systematic risk. First of all, and also most practically, the non-systematic risk is diversifiable, this means that by identifying the risks beforehand, or by constructing the portfolio of financial products to control the risk level, the investors could take measures to control the influence of such risk. For instance, when an investor considers there is potential risk in certain company, she would reduce position in the company's stock. Second, since the non-systematic risk is diversifiable, then it could also be avoided to some extent, as there are only one single company, or few companies in certain industry, are affected by such risk. Third, the non-systematic risk is predictable. The companies or industries that suffer from the operational problems would definitely show clear evidence before the risks break out, such as the declining financial factors. By analyzing the evidence, the experienced investors could predict the emergence of risk, and take necessary measures in time.

3.4 The Typical Case

A typical case of non-systematic risk that occurred recently is the major risks of Chinese real estate companies. In July 2022, the real estate sector in Hong Kong stock market fell as a whole, the share prices of leading Chinese real estate companies such as Ronshine Group, Powerlong Group, and Zhongjun Group declined sharply [14]. Previously, Hang Seng Index Co., Ltd. issued the announcement that 9 real estate companies suspend their trading, including the leading companies such as China Evergrande and Kaisa Group [15], since these companies failed to disclose their annual reports in time. The risk concerning the Chinese real estate companies is a typical non-systematic one, since the risk only emerge in one specific industry. The risks originated the poor management of these real estate enterprises and the impact of China's industrial policies, had led to the loss of their stocks and bonds, but will not lead to the depression of the entire market. In addition, investors could offset this risk by diversifying their investments or selling stocks in the real estate sector in advance.

4. Practical Significance in Distinguishing two Risks

Based on the above analysis, it is evident that the most obvious difference between two risks is whether the risk could be avoided beforehand. It is helpful, especially for investors, to correctly distinguish two risks, in order to achieve the suitable balance point of risk and benefit. To be specific, the practical significance in distinguishing these two risks is as follow:

First of all, the distinguishment of two risks could help the investors to hedge the risks they might encounter in the market. Non-systematic risk means the adverse impact of one or several factors on some stocks, and these risks are often limited to a certain enterprise and have little impact on the whole market. Therefore, such risk investors could avoid such risks through reasonable allocation, such as purchasing other types of stocks to temporarily avoid such risks. By identifying the non-systematic risks, which could be discovered through the thorough analysis on the internal operation and financial performance of the enterprise, the investors could purchase the high-quality financial products at relative lower risk, so as to hedge the potential loss derived from the systematic market downfall, or the systematic risks.

Moreover, the distinguishment of two risks is the basis of constructing the suitable financial portfolio for the investors. Almost every investor would construct specific portfolio, namely the combination of different kinds of financial products. By identifying the non-systematic risks, the investors could adopt the strategies of diversification, and to construct portfolio to offset the unfavorable risks. For instance, the typical fund investments avoided the risk of non-systematic and uncertain return rate of individual stocks through the way of portfolio investment [16].

Last, the distinguishment of two risks also help the investors to achieve the balance point of risk and benefit. Although the non-systematic risks could be avoided through strategies of diversification, however since such risks can be dispersed, there is no surplus value in taking such risks. In other words, taking additional non-systematic risks will not bring benefits to investors [17]. This is also in consistency with the common sense that the higher risk would bring higher return, and vice versa. According to the capital asset pricing model (CAPM), to gain excessive returns, investors have to bear systematic risks [18]. Therefore, distinguishing the two risks is also helpful for investors to determining the suitable balance point of risk and benefits, according to their risk preferences. For instance, an investor with lower risk preference tend to invest more on assets with lower systematic risks, such as government loans.

5. Alternative Approaches in Understanding Risks

In addition to the perspective of systematic/non-systematic risk, there are also various alternative perspectives or approaches, to define and evaluate the risks in the context of financial investment. For instance, the approach of scientific risk evaluation and management focuses on the calculation of the probabilities concerning the certain kind of risks, through the refined-constructed mathematical models, with the help of highly-advanced information technologies such as big data information [19]. By applying this scientific approach, the investors could construct their portfolio more accurately, based on the quantitative results derived from relevant analysis. However, this scientific approach also has its fundamental limitations, since before initiating the risk management measures, the relevant risks should first be identified, then the scientific methods could be applied to quantify the actual probabilities concerning the occurrence of such risks. However, since certain systematic risks could not predict, there is impossible to calculate the probabilities of such risks. For instance, by early 2019, no one could predict a global pandemic would occur by the end of year and bring great shocks to global financial market. Therefore, in completely relying on the scientific risk evaluation approach, while ignoring the potential systematic risks, the investors might endure unexpected losses.

Moreover, there are also other approaches to understand the risks, from the theoretical or descriptive perspectives. For instance, there is differentiation of risk types based on the origins of risks, including the operational risk, liquidity risk, credit risk, market risks and reputation risks [20]. However, the distinguishment between these risks could indeed help researchers to better analyze and describe relevant risks and produce academic research results, yet this approach has little practical value when it comes to the actual risk management activities for investors, especially in constructing the suitable investment portfolio.

6. Conclusion

This essay illustrates the key factors, as well as the characteristics of both systematic and non-systematic risks in the context of financial investment, based on the detailed clarification and analysis, plus the actual cases to elaborate the typical cases concerning the two kinds of risks. It is concluded that the systematic risk has the features of inevitability, unpredictability and non-diversifiability, while the non-systematic risk has the opposite features of evitability, predictability, and most importantly the diversificability. Therefore, it is of great help for investors to distinguish these two risks, so that the investors could better hedge the risks by taking suitable countermeasures in constructing the investment portfolio, and ultimately achieve the balance point of risk and return. Last, by discussing the other approaches in understanding risks, it is concluded that although these perspectives are helpful for quantifying the risks, or for academic research, yet in the field of investment, the distinguish between systematic and non-systematic risk is still the basis of reasonable risk management.

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