



## A Study on Risk Cost Management

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*The research is financed by Philosophy and Social Science Research Project of Hunan (No. 08YBB016) and Philosophy and Social Science Review Committee Research Project of Hunan (NO.0808061B) and Research Fund of Central South University of Forestry & Technology (NO.08QZ001).*

### Abstract

The uncertainty of economy and finance more and more affects cost and cost management. Cost management increasingly becomes the important means of risk management. The research on the risk cost and risk cost management in this article is developed based on the situation. The concept, kinds and characters of risk cost are the first research object in the article; the other research object is something about risk cost management.

**Keywords:** Risk cost, Risk cost management, Risk cost control, The Measure of risk cost

### 1. Introduction

In the traditional cost management, the subject of the cost is the production and operation of material products. Certainty constitutes its important feature. However, with the development of market economy, the risks increase continually and the uncertainty of the cost emerges increasingly. Especially, the development of the financial market makes the social and economic structure change greatly and the virtual economy develops at an amazing speed. On the one hand, the wealth effect generated by the fictitious economy promotes the prosperity of the global economy. On the other hand, it makes that the financial risk more serious. The risk management is increasingly challenged. The uncertainty and risk of economy and finance also more and more affect cost and cost management. Cost management increasingly becomes the important means of risk management.

### 2. The concept, kinds and characters of risk cost

#### 2.1 The concept of risk cost

Risk cost stems from insurance industry. The concept of the risk cost was put forward by the former chairman of famous American Risk an Insurance Management Society (RIMS), Douglas Barlow. RIMS and its strategic partner, British Ernst & Young defined it as some expenses related to risk in the reports they published, including premium, demurrage and internal management; external service includes consulting, necessary management and other sales service; financing guarantee; charges, taxes and the similar expenses. Risk cost is firstly used in the operation and management of insurance company. American famous risk management expert Scott E·Harrington and Gregory R·Niehaus think in their book *Risk Management and Insurance* that the existence of risks leads to the decrease of company's and enterprise's value and constitutes the risk cost. Author thinks risk cost is in essence the price that the investment subject possibly pays for the expected benefit. From the point of view of risk management, risk cost is divided into two: cost of risk management and cost of risk loss.

#### 2.2 Kinds of risk cost

The structure of risk cost is complex. Some kinds can be classified into from different angles.

##### 2.2.1 Risk management cost under certainty and risk loss cost under uncertainty

On the basis of uncertainty, we can divide risk cost into two kinds: risk management cost under certainty and risk loss cost under uncertainty. According to the relatively stable extent of probability's uncertain condition. Risk loss cost under uncertainty can also be classified into three kinds: (1) Expected loss cost; (2) Unexpected loss cost; (3) Exquisite loss cost.

### 2.2.2 Actual risk cost and risk opportunity cost

Aimed at the function of decision, there are actual risk cost and risk opportunity cost. when choosing and investing in the risk management project, risk opportunity cost is a kind of risk gain in the process of selection for the optimal risk project and abandoning sub-prime risk project. It is mainly used for reference for the risk decision, rather than actual cost.

### 2.2.3 Exogenous risk cost and Endogenous risk cost

According to the causes of formation, risk cost has exogenous risk cost and endogenous risk cost. Exogenous risk cost is caused by the external objects, for example, Market risk and credit risk in finance field also can lead to the exogenous risk cost. Because of the cognition and management for risk in the process of internal operation, endogenous risk cost is easily brought about.

### 2.2.4 Strict risk cost and generalized risk cost

The strict risk cost only means the current expense of enterprises, which affects the current profit and loss cost. The generalized cost not only includes the costs which have already been treated as expenses, but also the costs treated as capitals.

## 2.3 Four characters of risk cost

As a kind of special cost, risk cost has four important characters. Uncertainty is the basic character of risk cost. Because of the uncertainty of external factors affecting the cost, such as interest rate, exchange rate and stock price and so on, they are always changeable. On the balance sheet date, the value of risk asset and risk cost can't be determined finally. In order to solve the measure of risk cost, the estimate problem appears which brings the second characters of risk cost: estimation. The third characters of risk cost are compensation. The importance of the character that differs risk cost from risk cost is that risk cost decides the quality and analyzes from the point of view of compensation of risk cost. There is no going concern without the management of risk cost and efficient risk management can't be finished. The fourth character of risk cost is substitution. Between the two parts of risk cost, the occurrence cost of risk and the management cost of risk, exists negative correlation relationship under certain condition. The bigger the management cost of risk, the smaller the occurrence cost of risk; the smaller the management cost of risk, the bigger the occurrence cost of risk. The relationship reflects that substitution relationship exists in risk cost control. It decides the controllability of risk cost, that is, by the control means like the prediction, diversification and transfer of risk cost, reduce and eliminate risk cost.

## 3. The content and meaning of risk cost Management

The measure of risk cost and the risk cost control is the two essential contents in the process of risk cost management. The following articles will revolve around the above two contents to explain the meaning of risk cost management.

### 3.1 The referential basic theory and models of the measure of risk cost

The measure of risk cost is the basis of risk cost management. It is the uncertainty measure. The measure of risk cost is closely related to risk measure. The risk loss and maximum loss calculated by risk measure equals broad total risk cost. Risk cost itself does not negate the risk measure method and model that shows the quintessence of multidiscipline development adapts to the multidiscipline need and is mature.

#### 3.1.1 The referential basic theory of risk measure

The referential basic theory of risk measure is mainly embodied in the following aspects.

##### (1) The covariance measure of Markowitz

Markowitz assumes that investment risk can be taken as uncertainty of return on investment. The uncertainty can be measured by variance and standard deviation. Based on this, the rational investors always pursue the best equilibrium between the investment risk and return, that is, acquire the biggest return when the risk is certain or take the smallest risk when the return is certain. Therefore, the best allocation of financial asset in investment portfolio by M-V analysis and getting the solution to the second plan model under single target.

##### (2) William Sharp's $\beta$ value measure

William Sharp's  $\beta$  value measure is a kind of indicator to measure risk in Capital Asset Pricing Model (CAPM). CAPM was put forward by William Sharp based on Markowitz's mean variance model. It is simplification of Markowitz's early work. It is also an important theory in current finance and economics. Because of its conciseness, the method is widely accepted and used by the investors.

##### (3) The measure of risk value (VaR)

The basic meaning of VaR is: the largest expectation loss of risk asset in the certain confidence interval and holding period under normal market condition. The most obvious advantage of using VaR method to measure risk is its concise

implication and visible value judgment. It makes the portfolio risk concrete and becomes a number that can match with return, and is favorable to the realization of operation and management target. VaR is extensively used in actual risk management.

### 3.1.2 Models of the measure of risk cost

Some risk measure models are improved in the application of risk measure model to international finance. Now there are three main risk measure models: (1) Risk metrics model. The main purpose is to measure credit risk based on VaR; (2) Credit metrics model. The model is aimed at measuring credit risk; (3) KMV model. It is a credit risk measure model developed by the famous risk management company KMV and the model is different from Credit metrics which analyses the enterprise' credit condition from the point of view of stock market price change of the credit enterprise.

### 3.2 The risk cost control of the risk cost Management

The risk cost control is an important content in the risk cost management. The basic target of risk cost control is the balance between risk and return, make the risk return maximum, risk cost structure optimum and total cost the lowest. The control of risk cost, on the one hand, assures the safety of investment; on the other hand, assures that the financial institutions and bear the risk cost needed by the investment to generate reasonable return. The risk cost control is systematic, dynamic and replaceable. There are some main kinds of means of the risk cost control in risk cost management.

#### 3.2.1 Entire Risk Cost control

In order to adapt to the development tendency of Entire Risk Control (ERC) and internal control, the risk management of banks more and more emphasizes it is systematic, effective, complete and a process. As the important part of risk management, risk cost management needs to absorb its conception and thought. The management of risk cost firstly needs to build the control system of ERC. The basic objectives are: build complete, uniform and centralized control system of risk cost; build full process control system of risk cost and the transmission mechanism and make ERC efficiently implemented. The core of complete control system is to build the limit value system of risk cost. By the limit value of risk cost, it refers to the largest bearable risk cost measured by the financial institution. It represents the bearable risk level and takes this as the standard of control and realizes the complete control over the institution's general risk cost. After determining the bank's total risk cost control, understand risk business policy and break down control indicators. Build risk cost aggregate control mechanism and implement the limit value management of risk cost.

#### 3.2.2 The motivation control of risk cost

Although risk cost differ greatly from general cost, motivation analysis is still applicable to risk cost, only the relationship between each motivation and the total cost is not direct summing relationship because the motivation are obviously correlated. The covariance generated by mutual effect also becomes the basic factor that affects the total cost. Even so, the cause-result relationship between cost motivation and total cost is effective.

#### 3.2.3 The diversified control of risk cost

By efficient combination, when the return rate is the same, the risk can be lower, or when the risk is the same, the return can be higher, which is the important function of investment portfolio diversification and realize risk cost control by the investment diversification. Credit concentration is an outstanding contradiction that currently the Chinese commercial banks face. The general existence of the problem seriously threatens the prudent operation of the commercial banks. Credit concentration is the important cause that leads to non-performing-loan. Therefore, we should extensively use investment diversification and portfolio principle, take diversification as the basic policy and strategic orientation of credit management, adjust and improve credit management, from good credit structure and reduce the risk cost of banks.

## 4. Conclusions

Because of the uncertainty of risk cost, the measure of risk cost is unclear. In the actual risk operation of operation institution, which has the preference to pursue accounting profit, the two-way uncertainty of risk cost always changes and becomes a single risk, that is, the loss cost measure is seriously in shortage. Little by little, lots of risks are amassed, which greatly threaten the operation, and these risks have not fully disclosed. As described above, to reduce risk cost, it is necessary to strengthen the control over risk cost. This is integral important method to reduce risk cost, but the control over the risk cost is not enough, the compensation mechanism of risk cost must be built and perfected. the compensation mechanism of risk cost has special sense in risk cost management, which is the problem discussed by academic circles in the future.

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