Real estate investment project risk analysis

Li Lin[1]* and Li Fei[2]

[1]*School of Economics & Law, University of Science and Technology Liaoning, Anshan, China*
[2] *School of Business Administration, University of Science and Technology Liaoning, Anshan, China*

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ABSTRACT

In recent years, with the rapid development of national economy, real estate industry also begins to develop rapidly and presents a good momentum of development. However, at the same time, the risk of the real estate investment increases higher and higher. Therefore, decisions about the real estate project investment should not only consider the benefits, but also predict the risk accurately. The benefits and risks exist at the same time, the greater the benefit, the greater the corresponding risk. Many domestic and foreign scholars and economists are very concerned about this problem. This paper introduces the mature theory and method of the real estate investment risk，which can provide some valuable help for the real estate investors to their investment decisions.

Keywords: Real estate investment; Investment risk; Analysis method; Control and advice.

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INTRODUCTION

1.1 Research background of this paper
No matter at home or abroad, the real estate investment has high status and roles, it is mainly engaged in real estate development, management, management and service activities, it becomes one of the important channels to create wealthy. It is also great impetus to the development of the national economy.

In china, the real estate market has been dormant, after the reform and development it begins to develop. So, relatively speaking, the development of Chinese real estate market is relatively late. After the recovery in 1979, it developed gradually. And since 2006 Chinese real estate market appears the phenomenon of fever, and then the real estate investment risk also increases accordingly. In this case, government brought nearly l0 trillion per year after 2009 and 60% of which was credited into each local government financing platform. Because of mortgage policy is open, and makes loan interest rates down, which makes working-class people produce desire to purchase. Prices rose rapidly, which will stimulate investment and speculative. With the gradual transition of economic system in our country, the country made a series of macro-control policies, but unfortunately, in recent five years on the property market, second-tier cities and other large and medium-sized cities housing prices quadrupled. In recent years, with the continuous improvement of China's economic development and economic, the real estate investment risk is reduced, the regional difference is relatively reduced a lot, but many problems still exist in some links.

Abroad, many countries or regions have broken out the real estate investment risk, which led to the great depression of the national economy. Japan, Hong Kong, Southeast Asia is the most typical. In Malaysia, for example, it is the most typical country in real estate investment risk, with the rapid development of national economy, the demand for real estate investment is becoming bigger and bigger. The government also supports to put more money into real estate industry, and many financial institutions are involved, which led to the real estate bubble.

1.2 Research purpose and meaning in this paper
Real estate investment is an important influence factor to the country and the government economic development, so it is important to make a study of real estate investment risk analysis. Real estate investment is a comprehensive, professional, and highly technical activity actively. Except constantly changing market conditions, how to guarantee the stability and growth rate of return on investment, it must be the quantitative and qualitative analysis of the risk factors of real estate investment project, it is the key to the investors to make rational choice too. [1]The analysis and prediction of real estate investment risks will provide more channels for real estate investors scientific judgment, which is helpful for investors to make the right economic decisions, and conducive to the development of the real estate market.

2.The characteristics of real estate investment
Real estate investment has many features, such as objectivity, uncertainty, measurability and comprehensive and so on. [2] But all of the real estate investment also laid a solid foundation for us to study real estate investment. These unique characteristics make them have different risks. Therefore, to study the risk of real estate investment, we need to discuss the characteristics of real estate investment.

2.1 fund sources of the Real estate investment
Real estate investment needs a large amount of funds. In our country, there are many ways of financing of real estate investment, such as bank loans, its own funds and absorption of foreign investment, etc. These methods are often used to finance real estate investments.

2.2 Real estate investment has high investment rate of return and risk
Often have such laws that high yields obtained generally along with high risk. And real estate investment along with higher returned on investment, but because of its payback period is long, there may be some uncertain influencing factors, which makes the project usually has high risk.

2.3 long operating cycle and funding requirements
Real estate investment project requires a long time, the shortest is 1 year, usually is more than a few years. So it need a one-time investment, and the capital investment and money demand is bigger, thus increasing the investment, and reducing the risk of real estate investment.

3. Real estate investment risk analysis
Risk analysis is the premise and basis for the risk decision. So, a good risk analysis is very important for investors, it is the key to determine the project. the process of the risk analysis is mainly the risk identification, estimation and evaluation. Finally, make a comprehensive and system analysis according to the previous analysis. Including risk identification, risk assessment and risk evaluation stage.

3.1 The real estate investment risk classification
In the process of the real estate investment, capital requirements a long and persistent period, which makes the risk varied and complex, which mainly including the following:

3.1.1 Competition in the market risk
Competition in the market risk refers to that there is too much similar buildings in the real estate market, which makes the real estate competition and the corresponding promotion costs may improve, housing unsolvable and so on . Which will produces a great impact to investors. And the main reason for the market risk is that the early market research and analysis of the work is not very good. Among them, the market competition ability is the main sales risk.

(1)Business risk：Deviating refers to the expected value and the actual operating results, and the cause of this situation is the operational errors. This risk has the following three situations:

First, as a result of the poor benefit of the enterprise, management level is not perfect, if those are not sold in time, the housing vacancy rate will be high, the profit is also relatively well below expectations, which related costs increased.

Second, the investor's management decision-making errors lead to the operational risk, which is mainly because investors are not know accurate market information, and make mistakes in decision-making.

Third, the relevant legal provisions, and city planning regulations makes tax burden for investors, such as real estate investment activity is very important, but it does not very understand.

(2)The liquidity and risk BianXianXing：Real estate is fixed, the deal can only is the process of ownership or the transfer of using right and the entity is unable to move. Because it takes up more money, and the quantity is big, which make the real estate transaction is a quite a long process,

These are the influencing factors of the flow risk of real estate and liquidation ability is poor, such as real estate investors would be badly in need of cash but they would not sell the real estate in the hands as soon as possible, even if successful, which will affect the investment income, so it bring real estate investors to liquidate returns on risk.

(3)The purchasing power risk：It is mainly refers to the purchasing power of real estate of people relative decline, because people buy real estate commodity demand reduces relatively, also in this way, which will make it difficult to sale for real estate investors, and cause damage.

3.1.2 The financial risk
The financial risk refers to the financial situation, due to the bad situation makes the real estate investors unable to recover its initial investment. The source of risk is buyers, buyers have bought the house, for example, but it does not bring investors loss timely payment. On the other hand, due to the implementation of indebtedness and too much loan from financial institutions, although this way can increase financing channels, but will increase the risk of investment.

3.1.3 The interest rate risk
The improvement of interest rate risk is through interest rates brings losses, when interest rates change, the real value of real estate changes, which directly affect the net present value of revenue. [3] And when the loan interest rate increases, the real estate debt capital will be a certain fluctuation, the debt is aggravating, development costs is high.

3.1.4 Social risks
Social risks refers to the policy changes, due to the national economy changes some political factors and lead to fluctuations in the price on the market and demand, and makes a certain amount of losses in real estate investment.

3.1.5 Natural risks
Natural risks refers to an event of force major occurred due to natural factors, and make investors suffered losses. This loss is huge and inevitable.

3.2 Analysis of real estate investment risks
3.2.1 Analysis of risk causes
In the process of the development of the real estate industry in our country on the present stage, there are many kinds of problems, the causes of these problems, as a whole, is due to the real estate industry in the aspects of legal, social, and enterprise is not sound, not perfect and the lack of enterprise management concepts. Also comes from the deviation with economic laws, the macroeconomic situation, the insufficient understanding of the real estate, and many other reasons. From the Angle of the enterprise under the analysis of the causes are as follows:

(1)The early stage of the work is not comprehensive, does not consider the consequences. As companies basis and grasp the information is not comprehensive or accurate, prophase research work is not detailed enough, the lack of the city planning, development strategy, high starting point of the all planning and so on, those kinds of phenomenon is more serious in many cities, the land development plans do not have a detailed and systematic, especially in the overheated real estate phase, most of the enterprise covers an area of for prison, blind enclosure, without considering consequences of long-term, randomness and level is very low.

(2)The market main body itself has a problem. Market main body brings to the enterprise risk is the risk of foreign, more and more market main bodies are not honest, investors risk rate increases. Developers didn't consider the environmental problem, just the pursuit of high buildings and the development of the sea view room for later buried the hidden trouble of risk.

(3)The problems of the government policy. Due to the national implementation of macroeconomic regulation and control, some about the real estate market policies were formulated, the state shall adopt the tax, the control enclosure, such as qualification method was proposed to adjust the macro economy, so it would have influence on the investment to investors, heralding the real estate industry will be faced with new test.

3.2.2 Real estate investment risk identification
Risk identification is the foundation stage of real estate investment risk analysis and is also difficult. Only though the identification to the risk, we can risk assessment and risk decision. So how to accurately identify the risk of real estate investment, we need to adopt a certain calculation method, roughly divided into two parts.

(1)The theory of probability and mathematical statistics method
This method is the combination of probability theory and mathematical statistics method, according to the probability distribution result of investment projects .But this method requires market research, a relatively large workload, long time consuming, not identification in the larger project investment risk.

(2)The risk loss list method
This method can identify potential losses within the enterprise, the listing program is the enterprise according to oneself circumstance set, detected by risk, and make corresponding countermeasures.

(3)The method of fault tree
Draw a tree diagram, decomposed the fault, analyze its various branches, then find out the reason, and resolve a risk identification.

[4] This method is a good choice for the need to conduct a comprehensive analysis of the project.
Each risk identification method has its own advantages and disadvantages, when one makes the choice, to make appropriate choices according to the circumstance, can have very good effect.

3.2.3 The real estate investment risk analysis of commonly used methods
Investment is a uncertain thing, every investment is risky, each investment project itself is a complex system, many factors affect the risk of it, the relationship between various factors are complicated, their consequences of degree is also different, in order to predict or found a timely manner to these risks, and take effective measures to reduce the harm of it, we need a method to measure the risk. Real estate investment risk analysis of commonly used method with financial indicators analysis, quantitative analysis, break-even analysis, sensitivity analysis, and probability analysis method, etc. [5] the former third methods are reviewed.

(1)The financial index analysis
Financial indicators analysis refers to the assumed conditions, can achieve predetermined each financial index, a method to judge the risk. Financial indicators generally can be divided into dynamic and static indicators, as follows:

Table 1 Project financial indicators

Project financial indicators	Static indicators	Return on investment
		The static payback period of investment
	Dynamic indicator	The net present value of dynamic indicators
		The dynamic payback period

The index can reflect the financial indicators of the project, and reflect the extent of the way. And there is a difference between the degrees. Among them, the static and dynamic indicators is relative, the main difference is whether to consider the time value of money, and static index is often applied to the preliminary analysis, the dynamic index can be more comprehensive and detailed reflect the economic activity in the condition of the investment project. In the dynamic indicators of net present value (NPV) is the most commonly used indicators, is an important data of internal rate of return calculation.

(2)The quantitative evaluation method
Quantitative evaluation method (quantitative analysis) is a data analysis model, quantitative evaluation analysis generally need to have higher mathematics knowledge, characteristics, changes to the amount of investment projects and relationship analysis, it is use the data to illustrate the fact that the qualitative analysis method is a subjective judgment, by contrast, quantitative analysis be more persuasive.

(3)The breakeven analysis
Break-even analysis method is the relationship between quantity, cost and profit based on the study. Through project break-even point (BEP) analysis of project costs and benefits of a balance method, it is a kind of static analysis. It can measure project risk resistance ability and the ability to adapt to market changes. [6]

When the break-even point (BEP) is lower, the loss of the project is smaller. The greater the chance of profitable break-even point is the minimum development building area marks the development project.

Therefore, mainly through sales average balance, sales area of balance and the total sales amount, total amount of investment and project construction installation expenses and other indicators to calculate the break-even point. The diagram below:
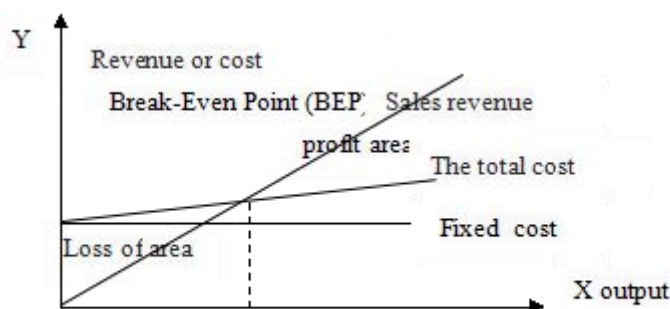

Figure.1 Break-even chart

The architectural area of the figure is in the order of production (development), the vertical is sales revenue and costs (investment), sales revenue and total cost of two straight lines intersect at break-even point (BEP), showed when the building area (ex.) development reaches a certain amount of time, the sales revenue and costs are equal, the profit is zero, intersection BEP called break-even point or break-even point.

BEP divided sales revenue and total cost sandwiched and losses into two regions by two straight lines. Such as the development of the construction area is smaller than this, the development project losses, on the other hand, the development project is to make a profit.

3.3 The real estate investment risk control methods and Suggestions
The real estate investment risk is particularly important for investors, but the ability to accurately is not an easy thing. So, this article on the analysis of its investment risk factors according to the actual circumstance of the real estate market, research control method and Suggestions are as follows:

3.3.1Real estate investment risk control methods
In the process of avoiding risk, we have three main strategies, risk prevention, risk aversion and risk retention, each kind of risk has its focus, specific as follows:

Risk prevention, in which there is no risk occurs, preparing the work ahead of time, when an unexpected risks happens, it will play an important role.

Risk aversion refers to that when a project risk failing to reduce and bring serious consequences, there is no better solution, it is a kind of control methods that can change or give up the action plans.

Risk retention including shifting risk (risk) and reduce the risk (self-preservation risk), this method in the risk prevention method is the most convenient and economical method.

(1)Transfer risk
Transfer risk refers to the risk when it happens, can make the part of the loss from one party to another party, it is suitable for when the loss and the status of the risk of damage is large. Transfer strategy including a sale; absolve contract, contract, insurance and guarantee, etc. [7]

(2)Reduce risk
Risk is mainly refers to when the arrival can reduce the degree of the consequences of a risk, its purpose is to reduce the possibility of risk, and to reduce adverse effects.

3.3.2 Real estate investment risk
(1) Improving the structure of the housing and residential investment cost is very important; it can be a residential structure which is more humanized, rationalization and diversification. [8] In the real estate market, the development of the structure is imbalance. We should make different housing structures according to different people.

(2)In the process of real estate sales, one should take implement existing home sales strategy, directly cancel booking system, so that can reduce the risk of consumers. In the development of link, should relax the constraints of loans from the bank, encourage the use of other financing way, minimize the investment risk.

(3)To establish a set of relatively complete, improve the risk management system, through the analysis of the actual situation and investment risk indicators for this process.

(4)Deal the information timely, and focus on legal, social, and the change about the information on the market, countermeasures timely.

(5)Require investors to form, keep a clear-minded, constantly strengthen the accumulation of knowledge and ability, in the face of problems can calm processing, make the right decisions, in this way, and can reduce the risk.

CONCLUSION

The existence of the real estate investment risks is great threat for investors and enterprises, and in this competition intense society, an enterprise to develop well, the development project must be succeed, must does a good job of risk management. Investors should be more rational when they treat problems, analyze and solve problems. And, risk management is not just a thing, the government should also actively involved, finally find suitable regulation and control policy of our country, through two parties work together to achieve the steady development of real estate market.

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