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**POLICY-RELATED RISK PATTERN
IN PROPERTY DEVELOPMENT IN CHINA MAINLAND**

By

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Abstract

ABSTRACT

The People's Republic of China (the PRC) has been developing her property industry under marketing economic mechanism over last two decades, and the industry has become an important industry in the Chinese economy. In line with the progress of property development, significant progress has also been made in developing regulation and policy systems in protecting the healthy development of the new industry. For improving the industry, the Government has been issuing many regulations and policies both at local and at central level for guiding and regulating the property industry. Revisions have always been made to the existing policies. This is understandable as the new industry has been through a growing process, which is subject to various changes and uncertainties in the market, and policies need to be adjusted to deal with the uncertainties and satisfy new conditions. It is expected that these changes and revisions will continue to happen in the future Chinese property industry as China is still in the process of reforming its economy. However, revisions and changes in policy would cause impacts to the business operation in the market. There exist policy risks in operating business in the industry, which is subject to policy changes. It is considered important to understand the policy risks in this industry thus proper methods can be employed to manage the risks, which can bring the impacts of these risks on business operation in the industry to a minimal level.

This study investigates the policy risks in the property industry due to the changes and revisions in policy in China. The focus is given to studying the major policy risks affecting the business operation in property development and investigating their impact pattern across

the whole process of property development. A procedure model presenting the property development process is developed for allowing that policy risks can be investigated at different stages in the property development process. This is also used as the basis for examining the different impact patterns of policy risks to different development procedures. The study examines the policy environment and procedures for developing property in other countries and regions such as Hong Kong. The characteristics of the policy risks in overseas property industries are investigated as well. This examination provides basis for studying the policy risks in the Chinese property industry.

Practical survey has been conducted to collect research data and support the analysis. Statistical techniques are used to calculate risk significance index by which major policy risks are selected. Case studies are also used to support the survey findings and enhance the analysis. The model of policy risk pattern provides the basis for conducting the comparison on policy risk management practice between Chinese Mainland property industry and the industry in other countries or regions such as in Hong Kong.

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Chapter I:

Introduction and Background

CHAPTER I - INTRODUCTION AND BACKGROUND

1.1 Introduction to the Study

Property development can be broadly considered as an industry in which developers build buildings over or under land for occupation and at the same time gain the appreciated return. In line with the population growth in the People's Republic of China (the PRC) and the demand raisings for the high-level production and living condition, the property development industry is growing rapidly and gaining a significant status in the country. It has become an important backbone industry of the national economy. The importance of property development has been proven in other developed countries and regions, such as Hong Kong, in which many enterprises directly or indirectly are involved in property development. The experience gained in other countries or regions has made significant influence to the property development industry in the PRC.

1980s brought significant changes in the leadership of the PRC. Following this, important reforms in political policies were adopted to advance the national economy. The principles of managerial autonomy and material incentives along with the development of productive forces and the correlation between production and market demands were applied to both industry and agriculture. Many of these principles were learned from Western Countries through economics and technology exchange schemes, brought about by the "Open Door Policy" (Shen, 1990).

The property development industry in the PRC started at early 1980s when the “Open Door Policy” and reform program were introduced. Considerable growth of the industry has been made since then. Although there are not yet many large property development companies in the PRC standing at the same level as those property giants in Hong Kong, such as Cheung Kong (Holdings), Sun Hung Kai & Co, Henderson Land Development and New World Development, those people who gained their first bucket of “gold” from the booming period of the industry in early 1990s and they promoted as the middle or upper class in this country. The benefits from property development industry have been well realized in the PRC, therefore, an increasing number of investors are keen to join the industry to share the benefits. In line with such development, the Chinese Government has been introducing and implementing various laws and policies for ensuring the proper growth of the industry.

As property development industry is a relatively new industry in the PRC, it requires a significant period of time to establish a proper legal system, adjusting regulations and policies is common in responding to various uncertainties across all aspects in the society. These policy-related amendments often cause significant changes and losses to the businesses engaging in property developments. This is echoed by the common sense that property development is a higher-risk business although higher risks are usually interpreted of generating higher returns. Therefore, the investors in property development consider managing risks as one of the most important management activities for getting high return and avoiding or reducing their chance of loss. Reducing the impacts of risks is also an essential element to the healthy development of property industry. Furthermore, property development is an industry that closely relates to human being across many aspects. It is

reasonable that the Chinese Government issues the policies or adjusts the regulations to supervise the operation of the industry in order to bring benefits to people and reduce the negative impacts to people's life. In addition, the development and changes in Governmental policies also have significant influence in related to the investor's return in the property development. Policy changes carry on uncertainties and risks to developers' interests. The study for proper understanding of policy-related risk factors and adequate methods of controlling these risks is therefore considered as an important issue to both of the industry development and protecting the interests of professionals who work in this industry.

1.2 Background

China is a developing country where the market economy has been established since the introduction of the Open Door Policy in early 1980s. In recent years, significant progress has been made in developing market economy system. Property industry has achieved significant progress in line with this development.

Housing was badly underdeveloped in the old days in Mainland China. The rapid increase in the demand for housing and property is the driving force of the property development in the PRC over previous years. The property development industry also becomes one of the major business sectors in China economy. The understanding about the background of this process will build up the basis for examining the policy changes in developing property market in China.

1.2.1 Land and housing supply policy under planned economic system in the PRC

The planned economy had been implemented for over 40 years since the establishment of the PRC in 1949. There was no property business in old days but welfare housing system. The Chinese Government used to adopt the socialist system characterized with planned economy. Land resources were centrally planned and allocated to various types of users without any charges and all users were public bodies. At that time, the welfare housing policy was the only one policy adopted in the country, by which the Government assigned houses to the citizen with a very low rental, and on the other hand, house transfer is not allowed between the users. Under such practice, all houses were owned by the Government only and the property market did not exist (Li, 1999; Louey, 1996).

In early 1980s, when the Open Door Policy was adopted in the PRC, the Government realized that the land is a very important resource for developing the national economy. In order to use such important resources effectively, the Government started to implement a land reform system and a new housing system. In 1988, the land use rights for property development was the first time granted to the user with a fee in Shenzhen. However, the complexity of the practice has been presenting various problems and uncertainties in the development process. To solve these problems and improving the practice, changes and revisions on various policies and laws are taken at times in order to improve the effectiveness of the legal system. The current policy system for property development is still under reforming and this process will continue in order to meet the requirements/commitments of China's WTO entry thus changes and revisions on policies are still expected in the coming future.

Comprehensive literatures have been developed in studying the property development in the PRC, mainly focusing on business environment, finance and marketing in Chinese property market. However, it seems that little research work was devoted to study the policy-related risks in the property development in the PRC.

1.2.2 History of the construction industry and property policy in the PRC

Land ownership was categorized into State Owned and Collective Owned when the Central Government of the PRC was established in 1949, denoting ownership by the Chinese Government and the collective units such as village production teams and farming collectives. At that time, houses and buildings in cities were allocated by the relevant authorities to the units for their use.

The launching of the Open Door Policy has influenced the Chinese Government to accept the principles of the market economy and to apply in the PRC. A remarkable rate of annual economic growth has been noted since the implementation of the policy. Having achieved significantly economic progress, the Chinese people have begun to seek for a better life quality, such as having better housing condition. The introduction of the new housing reform policy in 1980s has brought a large number of investors to the property development industry. These investments have brought good progress in developing the construction industry and the property market. In fact the property industry in the PRC has been in good progress with a very high growth rate and become a very important industry in the national economy. Large property development companies from both local and overseas have been established

simultaneously, for example, China Overseas Land, Beijing North Star, China Vanke Co Ltd, Henderson China Holding, New World China Land, etc., which are among the listing companies in China or Overseas' stock exchange market now.

In 1998, the Chinese Government declared the abolishment of the old welfare house system in the whole country. This development provided opportunity for accelerating the growth of the property development and property market. In line with this development, there was a strong need for establishing a proper legal system to protect the health development of the new market sector in the PRC. The development of legal system and relevant policies have gone through several major stages, from subjective rule by leader, establishment of legal system, to revising and improving policies and regulations, such as the revision of the macro-control on the economy. Nevertheless, each development or change of these policies did have significant impacts to the property development industry. The history of developing these policies and regulations demonstrates that the change of policies can bring loss to the business professionals in this industry. In other words, property business engages policy-related risks.

1.2.3 The implication of risks to property development in the PRC

It is commonly accepted that the property development industry could bring higher return to investors in comparing to other industries. This is a particular case in the PRC. However, a highly profitable investment usually carries higher risks of loss. The success or failure to a property developer depends to certain extent upon the way of managing risks. Previous

studies suggested that the construction industry has a poor reputation in coping with risks, many projects failing to meet deadlines and cost targets (Thompson and Perry, 1992), and the practice in China is similar.

Traditional studies have identified a comprehensive list of risk factors in the operation of property business and a number of techniques have been developed for managing risks. However, these identifications were based on individual property development projects, and most of them are one-off identifications. In fact, the impacts of risks on the objectives of a specific project will change at different stages during the property development process. Little existing research works contribute to analyzing how risks change their impacts in the property development process in the PRC, in particular, policy-related risks, which will be the focus of this study. For reducing the impacts of policy-related risks in the property development, it is very important to understand the nature and the changing pattern of policy-related risks in the property development in the PRC.

1.3 Objectives of this Research Study

The background studies undertaken in the previous sections provide basis for formulating the objectives of this study, which are described as follows:

Objective 1: to formulate a model of the property development process in the PRC

Since this study is deal with policy-related risk factors in the property development in the PRC, it is necessary to examine the contents of the property development process. Such

examination will lead to formulate a model of the property development process. Property development is a complex industry comprising many stages. Previous literatures suggested property development process in the developed countries or regions following a similar model. Although there are some descriptions about the property development process in the PRC in the existing literatures, little research work has been done to investigate the process as integration. Thus, one of the objectives of this study is to formulate a model of the property development process in the PRC.

The undertaking of this objective involves the review on the definition of the property development process in the PRC established by the other researchers and the experience gained by the professionals in the practice. In this model, the property development process in China is divided into four major stages: (a) the stage of feasibility study; (b) the stage of construction preparation; (c) the stage of construction process; and (d) the stage of property disposal and property management.

Objective 2: to identify the policy-related risks in the property development process in the PRC

As above-mentioned, the higher the investment return, investment involves, the higher the risk. Property development is an industry that can generate a higher return but also higher risks. The nature of the industry is closely related to the people's living. In order to protect the public interests, the Government is responsible for supervising the operation of the industry by issue laws and policies. Policy is a portion of the legal system issued by the Central or Local Administration Department/Authorities.

In the PRC, the policy system adopted in the property development industry is still in the process for reforming and revising. Changes, uncertainties and risks obviously exist. Although previous research works present substantial amount of literatures on risk managements in the property development in the PRC, little works have been focused on policy risks. This focus will be given in this study, namely to have an in-depth understanding on those policy risks and their regularity in the property development process in the PRC. Major policy risks will be defined and the pattern and the regularity of these major factors across various stages in the property development process will be assessed.

Such examination will provide the base for analyzing the impact of these risks, which will be followed by establishing the model about the distribution pattern of the policy risks across various stages in the property development process in the PRC. The formulation of this risk model is based on the information obtained from both literatures and practical surveys to the professionals in the construction and property development industry in the PRC.

Objective 3: to examine the influence patterns of major policy-related risks along the property development process in the PRC

After the establishment of the policy risk model in the property development process in the PRC, the occurring possibility distribution and the impact degree of the major policy risk factors will be formulated and modeled. The influence patterns of the major policy risk

factors along the property development process can be examined. This will be conducted through case studies.

In researches, it was pointed out risk management can involve identifying, analyzing and responding to risk factors (Uff and Odams, 1995). The pattern of the policy risk factors is the foundation stone of the policy risk management. In order to carry out the policy risk management, it is crucial to identify and analyze the characteristics of the policy risk factors in this study. And then suggestions will be provided for managing policy risks in the process of property development in the PRC.

1.4 Methodology of the Study

In summary, the first step of the study is to examine literatures and define policy risk and examine such risk factors in the existing practice of the property development process in the PRC. According to the definition of risks and the property development process model in the PRC, questionnaires will be developed for identifying major policy risk factors across the property development process. In the third stage, the survey result will be analyzed by using statistical techniques.

Existing literatures will be comprehensively reviewed for establishing in-depth understanding of the property development process and the typical risk factors associated. This information will be used as the basis in formulating the Property Development Process Model in the PRC (the PDPM).

In the developed countries or regions, the property development process has been well established, which can be used as reference for examining the PDPM. The establishment of the PDPM will also take reference from existing research works on the property development processes and the practice in the PRC.

Policy risk factors checklist will be formulated by referring to literatures and used to identify the policy risks in the PDPM. Practical surveys will be conducted to assess the comprehensiveness of the identification of policy risks. Indexing method will then be used to determine the major policy risk factors.

By referring to the checklist, the policy risk factors in the whole process of developing a property project can be identified, which is the focus of this study. Examination will be carried out on the occurrence possibility and the impact degree from the major policy risk factors.

This part of work will be conducted through comprehensive data analysis and surveys to professionals in the PRC property development. Questionnaires were specially designed to ensure that proper data would be obtained. The policy risk factors across all stages in the PDPM will be analyzed and presented in the form of frequency distribution and the impact degree.

It is considered that there is little regular relationship between the risk occurrence possibility and its impact degree to the property development, the risk occurrence possibility and its impact degree are investigated respectively.

By applying statistical techniques to the survey data, the models or patterns of the occurrence possibility and the impact degree of various risks at various stages in PDPM are to be established.

Firstly, validation will be conducted to the data collected by the questionnaires. Data will be grouped and presented in table format. The table comprises the judgments of the respondents to each policy risk factor in term of their occurrence possibility and significance of impact across all stages in the PDPM.

Secondly, statistics method will be applied to assist in analyzing the data. In this stage, arithmetic mean, standard deviation, radar chart and co-standard deviation are to be developed for demonstrating the analysis results.

With the help of these statistics tools, the comprehensive impact degree of risks in each stage of the PDPM and the rank index of the respondents' judgment on risks will be calculated by adopting arithmetic means and standard deviations. The results will be presented with diagrams and charts, presenting the impact degree of major policy risks and their occurrence

possibilities across various stages in the PDPM. By using these calculation results, the major policy risks at each stage in the PDPM will be identified.

Finally, based on the analysis result, the characteristics of the major policy risk factors in the PDPM will be presented. And then, the analysis results of the major policy risk factors pattern will be further discussed through investigating two case studies.

Two cases will be used to examine the implications of the analysis results in this study. By using these cases, the comprehensive impact degrees of the major policy risk factors will be demonstrated. The case studies also demonstrate the significance of examining major risks and taking property management methods in the process of development in the PRC.

Chapter II:

Risk and Uncertainty

CHAPTER II - RISK AND UNCERTAINTY

All human endeavor involves risks, such as automobile and plane crashes, toxic chemical spills and explosions, nuclear accidents, food contamination, the spread of AIDS, etc., the list goes on. Risks abound and people are increasingly aware that no one is entirely safe from the hazards of modern living. Risk reminds us of our dependency, interdependency and vulnerability.

In common usage, risk has a wide range of connotations: fear of specific hazards, concern for the interdependency of humans and technological systems, uncertainty regarding financial gain or loss, fear of the malevolent forces of nature, or the thrill of adventure, or worry about the competence and trustworthiness of those who manage risks (Jaeger, et al. 2001).

Risk factors, which can influence the return of the investment, are commonly defined in broad terms. Many researchers and scientists have developed sophisticated models and management techniques for risk management. These include such techniques as sensitivity analysis, utility theory, and simulation theory. There have been numerous attempts to deal with the underlying theoretical concepts of risk and the managerial techniques used to identify, analyze and respond to risk. In the relevant analysis about risk and risk management, various definitions of risk have been established in their literatures (Shen, 1990).

2.1 Literature Review

The literatures about risk and uncertainty have been well developed and are of rich contents. The proper undertaking of this study will be based on proper and comprehensive understanding on the relevant literatures. In particular, the literatures about the risks in the property development in developed countries and regions and in the PRC will be reviewed here.

2.1.1 The definitions of risk and uncertainty in the property development

Collins Cobuild (1995) gave a general definition about the risk and uncertainty in their dictionary. They defined the risk as: (a) if there is a risk of something unpleasant, there is a possibility that it will happen; (b) if something that you do is a risk, it might have unpleasant or undesirable results; (c) you say that an object is a risk when it is likely to cause danger; (d) risk is also used in these phrases; (e) if you risk something unpleasant, you do something knowing that the unpleasant thing might happen as a result; (f) if you risk an action, you do it, even though you know that it might have undesirable consequences; and (g) if you risk someone's life, you put them in a dangerous position where they might be killed. In the same dictionary, uncertainty is interpreted as: (a) when there is an uncertainty, people do not know what will happen or what they should do; and (b) uncertainties are things, especially future events, which no one is certain about.

From another angle, Pouliquen (1979) pointed out that risk analysis is essentially a method of dealing with the problem of uncertainty. Uncertainty usually affects most of the decision

variables, which are combined to obtain a cost estimate, an economic rate of return or net present value, a financial return, or any of the other indicators. These variables are usually used to evaluate a project. Sometimes uncertainty is assessed by combining estimated values as all input variables, chosen in such a way that they yield a conservative estimate for the result of the analysis. In other cases, uncertainty is given with the best estimate value, that is, the value that we think is most likely to be achieved. By this definition, uncertainty is thought the same as risk used in the risk analysis.

But Uff and Odams (1995) both argued that risk is the chance of an adverse event. More technically, risk is the combination of the probability or frequency of occurrence of a define hazard and the magnitude of the consequence of that occurrence. Thus, risk is a measure of the likelihood of a specific unwanted event and its unwanted consequences or loss.

After conducting comprehensive analysis, Byrne and Cadman (1984) described risk and uncertainty for their study as that, uncertainty lies at the root of the process of property development which is essentially concerned, with the manufacture of a product in anticipation of an unknown future demand. Indeed, if it were not for the constraint upon supply imposed by the policy of town planning, it would rank as one of the most speculative activities. Such activity involves relatively large amounts of capital for the product that is fixed both in time and space. Yet the property development industry has largely ignored the methods of formal risk decision analysis adopted extensively in other industries. Uncertainty is taken to be anything that is not known about the outcome of a venture at the time when the

decision is made. In contrast, risk is taken to be the measurement of a loss, identified as a possible outcome of the decision. This is as a typical and rigorous definition about risk and uncertainty from a technical analysis angel, which separates uncertainty and risk clearly. Similar definition is adopted by many researchers in risk analysis or risk management directly or indirectly.

Li, et al. (1998) in their literature suggested that in short word, the risk is the probability of the uncertainty event and the loss of the happening results. The characteristics of risk can be recognized as: (a) objective reality; (b) undetermined; (c) estimated; and (d) dualism of the result.

Shen (1990) referred risk as a lack of predictability about outcomes or consequences in a decision or planning situation. A common view of risks is that it can be thought and concerned of in terms of variability or uncertainty. Risks can also be interpreted as a lack of predictability about outcomes or consequences in a management decision situation. Risk is therefore, related to the outcomes and the concepts of chance, such as the probability of loss or probability of gain. Hence, risks normally comprise three essential elements: (a) the number of possible outcomes; (b) the value (magnitude) of each outcome; and (c) the probability of the occurrence of each outcome.

For the further risk analysis, he divided the risks with different types, such as the controllable and the uncontrollable risks, the dependent and the independent risks. Controllable risks are

those risks, which a decision maker undertakes voluntarily and whose outcome is, in part, within his or her direct control, this contrast with uncontrollable risks, which the decision maker cannot influence. Dependent risk is that when undertaking any risk evaluation, the question of dependence, or otherwise, between the risks has to be considered and assumptions have to be made. These concepts are very useful in implement of the risk analysis and the risk management.

Lifson and Shaifer (1982) recognized that uncertainties exist with respect to desirable as well as to undesirable consequences and that all such uncertainties influence the choice of alternative in decision analysis. Rather than introduced special terminology to refer to the chance that consequences might be better than expected, risk was defined as the uncertainty associated with estimates of outcomes. Therefore, risk means that there is a chance that results could be better than expected as well as worse than expected.

Jaeger, et al. (2001) had another opinion, suggested risk as: a situation or event in which something of human value (including humans themselves) has been put at stake and where the outcome is uncertain. In order to avoid certain confusions contained in other definitions of risk, it is important to point out several key features of this definition. First, expresses an ontological state of the world. Risk captures the duality that humans are embedded in uncertain environments - natural and human-made. Second, it explicitly states (uncertain but involving human stakes) that are properly conceptualized as risk. Third, it embeds the conventional definition of risk (as the probability of an occurrence or event multiplied by the

value of the outcome of the event). Fourth, it is robust, in that it subsumes both undesirable risks (the dominant concern of the field) and desirable risks, such as adventurous undertakings or investments in which risks are engaged in for thrills or similar satisfactions. By this definition, all risks carry with them either danger or opportunity - potential for loss or gain.

2.1.2 Conceptual differences between risk and uncertainty

Byrne (1984) pointed out that we have been using the terms 'uncertainty' and 'risk' in a rather colloquial form. If, however, we wish to take our study forward on a more rigorous basis we must define these terms somewhat more precisely. For the purpose, uncertainty is taken to be anything that is not known about the outcome of a venture at the time when the decision is made. In contrast, risk is taken to be the measurement of a loss, identified as a possible outcome of the decision. "Loss" need not be measured in purely monetary terms and may be as much perceived as actual. As we shall see the adoption of these interpretations about uncertainty and risk has the advantage of making a distinction between uncertain variables in the decision model and the potential risks of specific project as a whole as perceived by the decision-maker.

Shen (1990) presented that commonly, risk applies to quantifiable aspects of uncertainty, and this will continue to exist in the figures used in risk analysis. Although in a practical situation, the distinction between risk and uncertainty is not critical; the concepts of risk must strictly reflect the realities of a specific decision situation. For example, the change of a

Government's policies may not be a risk to a Western construction firm, but it is an uncertainty.

Enever and Isaac (2002) wrote that in statistics, risk relates to a situation where a probability or weight can be assigned to a possible outcome arising from a decision, while uncertainty is the situation when the likelihood of the outcome are unknown, and hence no measure of probability can be made.

Generally, in practice of implementing risk analysis and risk management, the uncertainties can be separated into two sectors, (a) the risk, its degree of the uncertainty in the investment can be known by the analysis; (b) the uncertainty, its degree of the uncertainty cannot be known.

2.2 The Definition and the Categories of Risk in this Study

Many researchers in existing literatures have described and defined the risk and uncertainty respectively. Referring to the definitions in these literatures, this study adopts the following definitions about risk and uncertainty:

Risk is taken to be anything that the outcome of a venture at the time can be estimated when the decision is made, and if it cannot be estimated, uncertainties prevail.

The definition of risk assumes the foundation of our research. In this definition, the result of risk in an event can be estimated. By the characteristics of risk, risk occurs with regularity and possibility in the practice, so the risk analysis can be carried out in the practice, such as the risk by airplane crashing lead by the reason of machine overrunning. Consequently, certain management methods can be employed for responding the risk. On the other hand, the uncertainty occurs randomly and its result cannot be estimated, such as the traffic accident in the road to passerby, who cannot estimate the uncertainty on the road.

Risk identification, which will be discussed below provides an understanding of the nature of risk. It helps to identify and characterize the types and source of risk.

2.2.1 Types of risk

In this study, the risk is classified into various types, such as assets related risk, business risk, financial risk and capital related risk. The distinction between business risk and financial risk can be generally made. Business risk is associated with asset risk, which includes capital expenditure, gross possible income, credit loss, operating expenses, etc., and it is described as the probability that the expected level of productivity return from the invested asset will not be received. Business risk can be further divided into pure risk and speculative risk.

Pure risk is sometimes called static risk, non-market risk or unsystematic risk. It exists when the potential outcome has a risk of no potential gain and is related to physical cause and effect, occurs at random and is beyond the control of the decision-maker. Speculative risk is

sometimes called dynamic risk, market risk or systematic risk. It involves the possibility of both gain and loss for a business. This kind of risk is related to changes in general business conditions.

Financial risk refers to the extra risk for a business created by debt financing. It is the probability that the expected or required rate of return on total capital will not be realized.

2.2.2 Source and effect of risk

In the risk analysis, it is necessary to understand the characteristics of risk, such as to distinguish the source and effect of the risk. Because it is not always obvious to think in terms of the source, the event and the effect of risk, risk identification is emphasized mainly on risk sources by two ways, controllable and uncontrollable risk or dependent and independent risk.

The controllable risk is the risk where the outcome of it can be wholly or in partly controlled and the decision maker can undertake voluntarily. This contrasts with uncontrollable risks, which the decision maker cannot control or influence the result of the risk. However, in different countries or regions whether a risk is a controllable risk or not, such as the risk of the urban plan is a controllable risk in the developed countries or regions, but it may be an uncontrollable risk in other countries. There are many typical examples in the property development in the PRC, such as the risk related to the change of the Government macro-economic policy, which is an uncontrollable risk.

Furthermore, the dependent risk can be influenced by other risks, and occurs at various stages of an investment process. The independent risk will not be influenced by other risks and only occurs in one stage of an investment process. For instance, the risk of supply changes of land use is a dependent risk across the stages in the property development process, which occurs in more than one stage across of the whole property development process. On the other hand, the risk of using lower quality building materials in construction process is an independent risk, which only occurs in one stage.

As we mentioned the above, risk occurs in every industry of the world, comprising the property development industry. In this study, we focus only on the possible loss which relates to the policy risk in the property development in the PRC, such as cost overrunning, time overrunning, poor quality of the project, etc.

Chapter III:

Investigation to the Process Of Developing Property in China

CHAPTER III - INVESTIGATION TO THE PROCESS OF DEVELOPING PROPERTY IN CHINA

Property development is a complex industry and it is also an important element for the economics and human life across all countries or regions in the world. The Chinese property development industry and property market has been established in the recent years. There is a difference of this industry between that in the PRC and in the developed countries or regions, such as the Western World and Hong Kong. Therefore, it is necessary for this study to examine the property development process established by other researchers in the literatures, and then to assist in establishing the property development process model in the PRC (the PDPM) for this study.

3.1 Introduction to the Property Development Process

Property development industry has a long history in the developed countries. Substantial literatures have been developed in studying the property development process and the major literatures can be critically reviewed as following:

Byrne and Cadman (1984) pointed out that the definition of the property development given by Pilcher Report (HMSO Report, 1975), comprises six tasks: the perception and estimation of demand for new buildings of different types, the identification and securing of sites on which buildings might be constructed to meet that demand, the design of accommodation to meet the demand on the sites identified, the arrangement of short and long term finance to

fund site acquisition and construction, the management of design and construction and the letting and management of the completed buildings.

Furthermore, they argued that the property development could be divided into three parts: acquisition, production and disposal. The first part of the process comprises the acquisition of the land upon which the development is to take place and the acquisition of the appropriate planning permission. The second part comprises the construction of the building or buildings. The third part comprises their disposal both for occupation and investment.

Cadman and Austin (1991) described that the main stages in the property development process can be summarized as: initiation, evaluation, acquisition, design and costing, permissions, commitment, implementation and let/manage/dispose.

Property development is initiated principally by a user looking for a site, or a site looking for a user. It involves many stages, and these stages may not always follow a particular sequence and often run in parallel. Evaluation is a vital stage in the process and responsibility for conducting evaluation ultimately rests with the developer. The process of evaluation needs to ensure that the cost of the development is reasonable in relation to its purpose and is likely to be covered by a satisfactory return. Design is an almost continuous process, getting progressively more detailed as the development proposal increases in certainty. Following that, the acquisition of planning permission is necessary. The prudent developer must clear all legal permission hurdles before commitment to the development. For ensuring that the

development is carried out at the appropriate speed, quality and cost, it may best be achieved by employing a project and/or construction manager to co-ordinate the design and build functions in an optimal manner. Let, management and disposal need the developer to be at the forefront and to decide the letting and sales strategy.

Gatepain (1995) described that the definition of property development according to the Town and Country Planning Act 1990, UK is: “the carrying out of building, engineering, mining or other operations in, on, over or under land, or the making of any material change in the use of any buildings or other land”.

The development process can be divided into five stages, though these are not autonomous and each will draw information from and affect the others. The five stages are conception, evaluation, planning, construction and disposal or use.

3.2 Property Development in the PRC

It is generally known that the basic necessities for human society are food, clothing, housing and transportation. Similarly in China, the property development is one of the most important backbones to national economy these years. Both in the past time and present, housing has been always a major issue concerned by the Government and its people.

With compare to the developed countries or regions, the property development in China has many special difficulties due to the program of reform, which the industry is undergoing. It

is a new industry in the PRC, which has a history of about 20 years only. In China, the construction industry was traditionally treated as a public service by the Government before 1980. The property market and property development industry was established after the Open Door Policy introduced at early 1980s.

With such huge population, housing is a very complicated and comprehensive problem to the people and the Government in the PRC. Along with the reform of the economic systems and housing system, the property development has become a much more important industry in the Chinese economy. In recent years, the changes and reforms on policies have provided good business opportunities in using land and developing property industry in this country. Many commodity buildings, including residential, commercial and industrial buildings have been erected in recent years in this country. Significant proportion of these properties has been developed by overseas or joint venture development companies. These are the benefits gained from the reform of the land use rights system and housing system. In sight of the construction industry reform, the reform of urban land use rights system and reform of housing system are the most important aspects. For implementing these reforms, a set of relevant laws and policies has been issued.

3.2.1 The reform of urban land use rights system in the PRC

Land ownership system and the land use rights system in the PRC are much different with that in other countries or regions. From the establishment of the PRC, the public ownership for land has been adopted for over fifty years. The land ownership rights are defined as the state-owned or the collective-owned by laws. In the planned economies, the state decided

who needed what and how much. Site location was of little importance as enterprises were not competing with each other for profit maximization or the political atmosphere prevailing at the time when an application for land is made. Since land users in planned economy did not need to improve their economic efficiency as much as their counterparts in the market economy, the allocation of land may not accord with efficiency principles (Li, 1999). At that time, many users requested more site area than they needed because it is free in charge. The only positive aspect of the free land situation was that low-rent housing could be enjoyed by almost all the workforce of the state enterprises. In the majority of cases, if land is not allocated according to the economic efficiency to the user but to a certain set of political criteria, it could distort the whole supply and demand system.

In China, the reform of urban land use rights system launched in late 1980s was partly driven by the overall economic reforms and the Open Door Policy advocated by the Chinese leader, and partly evolved out of the negative consequences of the state-owned land allocation system.

In 1987, the testing for new policy issuance for transferable land use rights in the free market in some cities, such as Shenzhen and Clause 4 of Article 10 of the constitution was amended as 'the land use rights can be transferred in accordance with the law' in 1988. With this amendment, a leasehold market was created in the PRC and land still belongs to the state on behalf of the people. Interim Regulations of the PRC on Granting and Transferring the Right to the Use of State-owned Land in Cities and Towns were also issued by State Council in 1991 and it separated the land use rights from ownership rights. Article 12 and 13 of this

regulation described the land use term and grant types such that ‘The maximum duration for land use rights to be granted shall be determined according to the following purposes listed: (a) 70 years for residential use; (b) 50 years for industrial use; (c) 50 years for educational, scientific and technological, cultural, health and sports purposes; (d) 40 years for commercial, tourism and recreational activities; and (e) 50 years for general or other purposes;’ and ‘Land use rights may be granted in one of the following ways: (a) agreement; (b) bid; and (c) auction’ (State Land Administration Bureau, 1992).

From testing for grant of urban land use rights in Shenzhen in 1987 and the legal system changed in China, the grant of urban land use rights has been carried out in the country and the land market was established. The reform of land use rights system has led to that the land use rights can be granted to the occupiers for their uses. Previously, land use rights were not allowed to transfer under the laws and at that time there was no property development and property market in the PRC.

3.2.2 Housing system reform and the establishment of the property market in the PRC

The housing problem caused by the state land allocation system is also reflected in the housing supply. In the PRC, the genuine welfare housing system was adopted over three decades from 1950s and the houses were allocated to the staffs with a symbolic rental at that time. There was no property market for property transaction or lease in those days in the PRC. Housing was viewed as non-productive and engaged a low development priority, amount of living space per person was to 3.6 sq m in 1978. Since the Open Door Policy introduced, the high growth of the national economy brought the people needs of better living.

And the Government began to invest more in housing. The average living space per person had increased to 10.3 sq m at end 2000 (Walker, et al., 1998). The following table shows the development of the economy and the people living level in this country.

Table 3.1 Main Indicators of Economic and People Living in the PRC

	1978	1980	1990	2000
Gross Domestic Product (RMB100 million)	3,624.1	4,517.8	18,598.4	88,189.6
Per Capita Gross Domestic Product (RMB)	379	460	1,634	7,078
Saving Deposit in Urban and Rural Area (RMB100 million)	210.6	399.5	7,119.8	64,332.4
Per Capita Annual Disposable Income of Urban Households (RMB)	343.4	477.6	1,510.2	6,280.0
Per Capita Net Living Space in Urban Areas (sq m)	3.6	3.9	6.7	10.3

(State Statistics Bureau, 2002)

For the purpose of establishing market economics and improving the standard of people's life, the Chinese Government introduced the housing reform policy to open up and commercialize the public housing market. Housing reform received early attention in China because the privatization of housing was ideologically less contentious than that of land. The successful housing reform program has provided the basis for the authorities to set up the urban land market (Li, 1999). As the result of the reform of the welfare housing system, the China property market was established in 1980s.

In the property market, the commodity houses can be transferred or leased. At the early stage of the reform, the welfare housing system and commodity housing system existed simultaneously in the PRC. Under such system, some people could be allocated with the welfare housing by the Government and the others had to buy property in the market. The Government had to spend a lot for maintaining the welfare housing system each year.

In 1998, the final step of housing reform was carried out with the Central Government deciding to rescind welfare-housing system with cashing housing system from the end of that year. The demand for houses could be satisfied through the property market from that time and a true property market has been gradually established in this country.

In line with the reform of the construction industry in China, reforms of urban land use rights system and housing system can be seen as complementary rather than individual reform programs.

3.2.3 Important situation of the property development in the PRC

Since the reform of housing system, especially after the Chinese Government declared to abolish the welfare house system in the country in 1998, the property development is considered as a new growth point of China's GDP (value-added of the tertiary industry by property development sector rose from RMB36.82 million in 1991 to RMB152.84 billion in 1999). The welfare housing system stopped at the end of year 2000, and brought unexpected

good business opportunities for the property developers/investors in the PRC. Table 3.2 shows the growth of the Chinese real estate industry.

Table 3.2 Main Indicators of Real Estate Industry in the PRC

	1997	1998	1999	2000
Numbers of Enterprises	21,286	24,378	25,762	27,303
Average No of Employed Persons	683,200	825,900	880,300	971,900
Investment Completed (RMB100 M)	3,178.37	3,614.23	4,103.20	4,984.05
Floor Space under Construction (10,000 sq m)	44,985.5	50,770.1	56,857.6	65,896.9
Floor Space Completed (10,000 sq m)	15,819.7	17,566.6	21,410.8	25,104.9
Floor Space of Selling House (10,000 sq m)	9,010.2	12,185.3	14,556.5	18,637.1
Total Revenue (RMB10,000)	22,184,557	29,512,078	30,260,108	45,157,119

(State Statistics Bureau, 2001)

Since the property development industry started to play a very important role in the country's economic system, the Central Government has been keen to develop the industry as the backbone for the economic growth in the country. Therefore, a lot of laws and policies related to this industry have been issued by the Government authorities to standardizing and accelerating the property development in the PRC.

3.3 Investigating to the Characteristics of the Property Development Process in the PRC

In the past two decades, the property development had big progress in the PRC and the property development process is going towards the international standard. However, for the property development as a new industry, there are few research studies on the model of the property development process in the PRC. The typical literatures described the process of the property development in the PRC can be highlighted as follows.

Shen (1990) pointed out that the condition of the Chinese construction industry in the past decades was very unsatisfactory until early 1980s. It used to be considered as a non-production department, but rather a consumption department within the national economy. The development of the industry had been limited by interference from the Government and manipulated at the whim of political policies. The Chinese construction industry is currently still undergoing a reform program, a program that has brought many changes. But the changes to a market-driven environment have also induced risks to the business activities in the industry.

Li, et al. (1998) argued that the property development process could be divided into three stages: feasibility study, construction implementation including financing and construction process, and disposal of the properties.

The feasibility study is the initial basic stage in the process of the property development. It comprises preliminary feasibility study, technical study and economic study of the potential project. This process is of vital importance for the whole project process and research and analysis about the property market of the concerned project are particularly important.

The construction implementation is the stage at which the property investment plan is implemented. This stage consists of the activities of the land use rights acquisition, capital raise to architecture and construction process. In particular land acquisition is a complicated issue and normally involves various legal problems in the practice.

The stage for the disposal of the properties in the investment process is expected to produce income. It is the realization of the investment return in the project, which comprises the sales, lease and management of the property in the development project.

Liu, et al. (2001) proposed that the process of the property development comprises eight steps, including investment opportunity finding, the investment opportunity selection, land use rights obtaining, project planning, design approval issuance, contract signing, construction works and evaluation for construction quality of the project, property sales, lease and management.

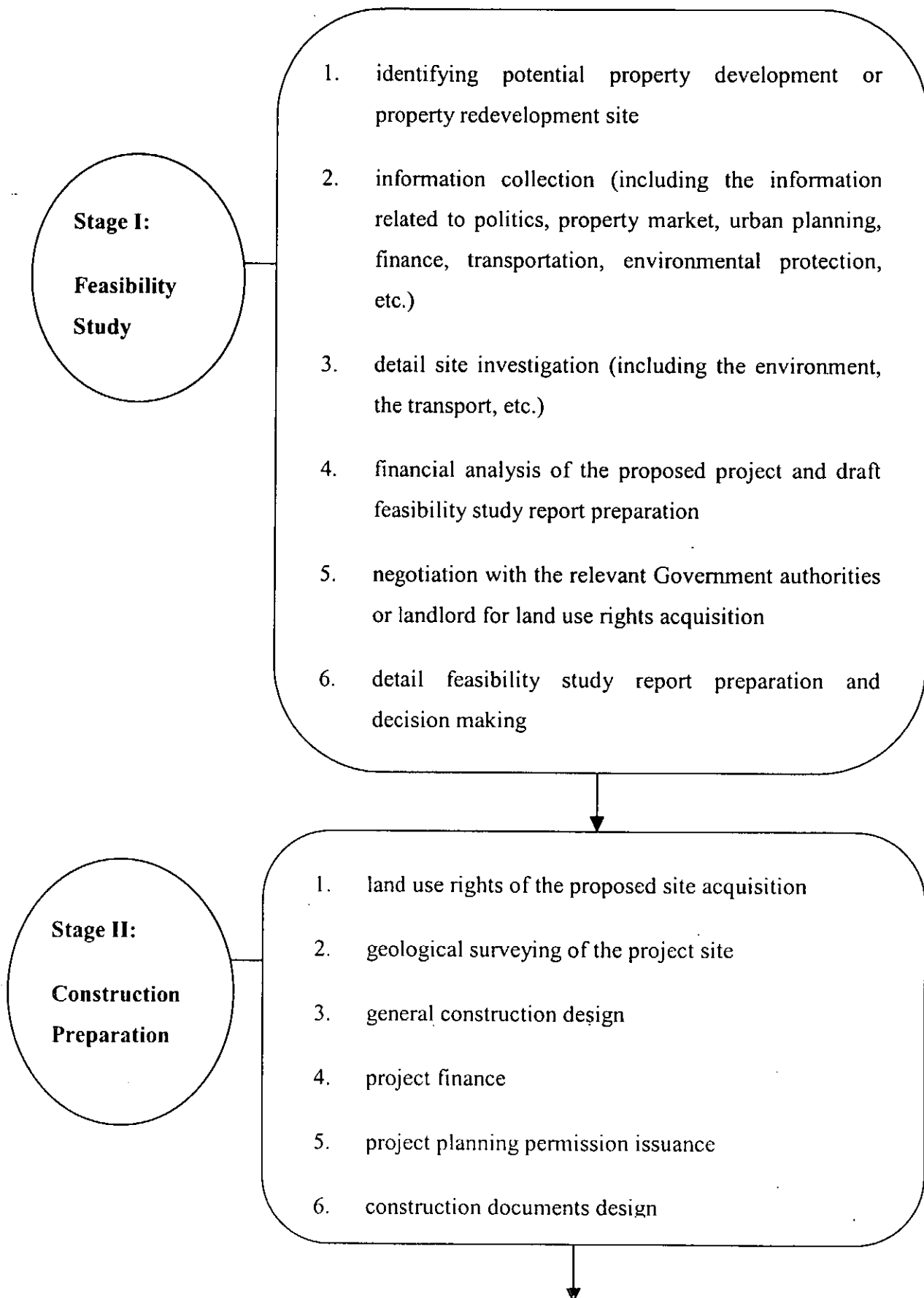
Tsui and Shen (2001) presented that the property development is a complex industry related to the input of manpower and material resource. Currently, the property development

industry in Mainland China is going toward the international practice. The procedure of the property development in China can be divided into six stages: (a) opportunities selection and decision making; (b) acquisition of the land use rights for the development project; (c) project design and plan approval; (d) project finance and joint venture contract signing; (e) project construction and evaluation for construction quality of the project; and (f) property lease or sales and property management.

In general, there are various descriptions about the property development process in the PRC, which is different to certain extent to developed countries or regions, such as acquisition of land use rights, the supervision of the completion project, etc.

3.4 Property Development Process Model in the PRC (the PDPM)

The above discussions on the process of the property development in both overseas countries and in the PRC have provided valuable basis for building up the PDPM for this study. The PDPM is constructed to comprise four major stages: (a) feasibility study (including identifying potential development project, site investigation, feasibility study report preparing and decision making, etc.); (b) construction preparation (including the acquisition of the land use rights, design of the property development project, planning permission for the property development, etc.); (c) construction process (including tendering for the project contractors, construction works, issuance of the certificate on the acceptance of the completed construction quality, etc.); and (d) property disposal (including lease, sales and pre-sale, promotion, etc.) and property management. This model is demonstrated in Figure 3.1.



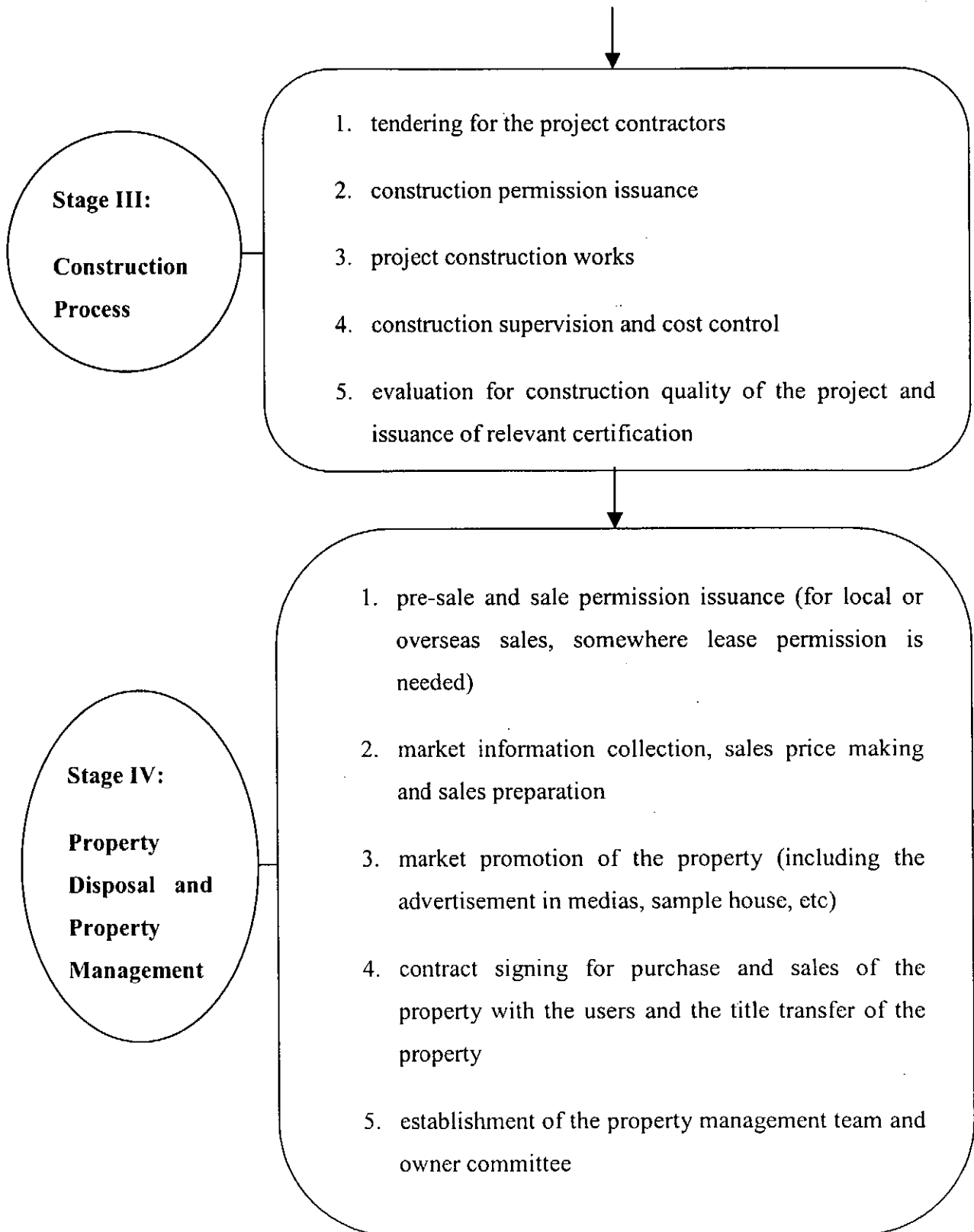


Figure 3.1 The Property Development Process Model in the PRC (The PDPM)

3.4.1 Feasibility study related to the potential property development project

Prior to the acquisition of land use rights for property development or property redevelopment, it is very important to carry out a feasibility study. At this stage, a detailed investigation on the project environment should be undertaken. This investigation will look at all aspects of the project in order to ensure that the development is worth pursuing. Such report presents the variability of the project. The feasibility study is the basis for decision making to the property development. Through the feasibility study, developers can understand reasonably the possible future of the project and the potential return of the development. This process has also been known as project evaluation in the literatures.

In the feasibility study, the political, economical, environmental, transport, technical and financial elements of the concerned project are key elements to be considered. Through this stage, property investors can understand the risk factors that will affect return of the development project, including risks about politics, economics, finance, environment protection, etc. Based on this understanding, decision can be made about whether or what extent the investment should be committed in this project. Therefore, feasibility study is the fundamental stage of the development project.

3.4.2 Construction preparation

This stage comprises acquisition of the land use rights for the property development or property redevelopment, the project design and plan permission obtaining. The implication of these procedures are discussed as follows:

Firstly, pursuant to the feasibility study about the potential property development project, the developers will acquire the land use rights to be granted from the Government authorities or transferred from other land users. The developers will develop the property according to the conditions written in the contract for grant of the state-owned land use rights made with the relevant Government authorities.

Secondly, a geological surveying of the site for the project should be conducted. Through this survey, the developer will understand the geological condition of the site and the information will be collected for preparing project design. The developer will appoint designers and architects to carry out a design according to the Government plan and the construction condition in the contract for grant of the state-owned land use rights. This is a technical procedure, which can affect to a large extent the return of the project. The construction condition is defined with a number of variables including the site area, the plot ratio and site coverage, the maximum height of building, the ratio of green areas, total gross floor area for the site and the ratio of each usage, number of the car parking spaces, depth of underground construction, etc. Before carrying out the detailed planning of a project, it is advisable to check the urban plan related to the proposed project with Government planning department.

Similar to other countries or regions, the permissions are required of committing a property development project, and they are issued by the relevant Chinese Government authorities, such as the Construction Land Use Planning Permit issued by land administration department, the Construction Project Planning Permit issued by planning department, etc. These

documents have to be presented for obtaining other permissions from construction committee, fire department, transport administration department and other departments when construction implemented.

3.4.3 Construction process

The construction process translates the design to the physical products. In this stage, there are many procedures such as the tendering of the contractors, the project construction works, the evaluation for construction quality of the project, etc.

At first, the construction works will be presented to potential contractors for tendering. In the PRC, there are three forms of tendering methods for construction works: open tendering, selective tendering and negotiate tendering. In the practice, the first and second approaches used to be adopted in China. After obtaining the Commencement of Construction Project Permit, the construction process can commence. Pursuant to the contract, the main contractor is responsible for the construction process of the project and the project manager would be responded to harmonize the project partners engaged in the program.

During construction process, site supervision is another important point. Project supervision system has been developed in China in the previous years. By adopting this system, a professional firm called project supervision agency is responsible for supervising the quality, the cost and timing, the contract and information management and cooperation in the whole construction process.

Upon the completion of the construction works, the evaluation for construction quality of the project will be conducted by the relevant Government authorities, working together with designers, contractors and developers and a certificate on the acceptance of the completed construction quality will be issued by the Government authorities. It is worth noting that such practice is changing. Some local Governments request project developers to conduct project completion evaluation. For example, the practice has been stopped in Shanghai, the evaluation for construction quality of the project by the Government authorities being replaced by the developers themselves from 2002 under the new policy issued by Shanghai Government.

3.4.4 Property disposal and property management

At the last stage, the developers can generate income by selling or leasing completed properties. Expected profit from the property development project can be realized. There are a number of procedures involved in this stage. Firstly, pre-sale or sale permission should be obtained from the relevant Government authorities. Developers have to examine the market carefully when establishing a selling price or a rent for the property. Since the property is a basic element to the human life, the Government often intervenes the price in property market, so the disposal of the property is not only affected by the market information but also by the potential of policy risk. At early 2002, the Ministry of Construction issued a new policy for standardizing the sales of commodity house. By this policy, the standard of the salable area is standardized across this country, which affects the price of the property. The introduction of this policy also indicate that the property market is always affected by the policy issued by the Government authorities in the PRC

Based on the analysis about the property market, including the demand and supply, and the policy, the developers will determine the selling price or rental of the development. Normally, a sales agency is introduced at this time, which can give some professional advice and information to the developer or is with responsibility for property sales. To promote the selling, sales office and the sample house should be established for preparation of the sale. The advertisement in the medias is also adopted for the purposes.

A property management office will be formed to prepare for the post-selling services. Property management is one of the major elements for the purchasing of the property. In the present, customers will not only consider the quality of products but also the post-selling services of products in China. After the signature of the sell and purchase contract and registered in the relevant Government authorities, the title of the property can be transferred from developer to the purchaser.

When the contract of the property title transfer between developer and purchaser is endorsed and registered by the relevant Government authorities, a property ownership certificate will be issued to the purchaser by the Government authorities and the purchaser can move into his property. The property development process is to finish by this time. From this point, the property management company will be responsible for the maintenances and management of the property afterwards.

3.5 Risks in the Property Development in the PRC

In China, the property development industry is currently still undergoing a reform program. This reform program has brought many changes and will continue in the coming years. These changes create a risk environment for this industry. This risk environment is new and unfamiliar due to many difficulties in the PRC, which are encountered in the application of new economic strategies such as the marketing approach to the property development industry.

In past researches, risks in the property development were classified in different categories, such as the political environment risk, the economic system reform risk, the industry policy risk, the land use system reform risk, the housing system reform risk, the financial policy changing risk, the environmental policy changing risk, the construction safety regulation changing risk, the risk of the evaluation for construction quality of the project and the law risk (Shen and Yu, 1996). In these categories, the policy risk has been suggested as an important risk factor in the property development and it is also the focus in the following section of this study.

Chapter IV:

Policy Environment and the Change of The Policy in the Property Development In the PRC

CHAPTER IV - POLICY ENVIRONMENT AND THE CHANGE OF THE POLICY IN THE PROPERTY DEVELOPMENT IN THE PRC

A proper legal system is an important foundation for developing economies to any country. Those developed countries or regions have been making good economies to large extent because they have established good legal systems in past years. Property development in these advanced areas relies to large extent on a proper policy environment. In this chapter, focus will be given on discussing policy environment related to the property development in the PRC.

4.1 Policy System and Housing Policy in Developed Countries or Regions

Policy is a method for administration by the Government authorities in the world and the policy system is established under the social policy in every country, such as the housing policy. In this section, a brief review will be carried out on the definition, the establishment and the system of policy in some developed countries and regions.

4.1.1 Policy system

In Oxford Advanced Learner's Dictionary (1994), policy is identified as plan of action, statement of ideals, etc., proposed or adopted by a Government, political party or business. The purpose of policy making is to protect the public interests. In developed countries and regions, policy system has been established for a long time, which comprises different political and economical policies, such as financial policy, housing policy, environmental

policy, labor policy, etc. In these environments, policy system has been well established and implemented. However, it is necessary to take a long time for the establishment of the legal system. For example, there were about 12 acts issued relating to the principal housing and public health legislation during the period from 1848 to 1914 in the United Kingdom (UK), which is shown in Table 4.1 (Malpass and Murie, 1994).

Table 4.1. Principal Housing and Public Health Legislation, 1848~1914

1848	Public Health Act
1851	Labouring Classes' Lodging Houses Act
	Common Lodging Houses Act (amended in 1853)
1866	Labouring Classes' Dwelling Houses Act
1868	Artisans' and Labourers' Dwellings Act (Torres Act)
1872	Public Health Act
1875	Artisans' and Labouring Dwellings Improvement Act (cross Act)
	Public Health Act
1885	Housing of the Working Classes Act (consolidating Act)
1890	Public Health Act (extended 1875 Act)
	Housing of the Working Classes Act (consolidated and amended earlier legislation)
1900	Housing of the Working Classes Act (amended 1890)
1909	Housing and Town Planning Act

This shows that in the establishment of the policy system, the process will be subject to new issuance or changes of the policies and with a long term. In this term, there are many changes and revisions of the relevant policies in developed countries or regions. These changes occur in almost every industry, including the property development industry.

However, the changes of policies are only to be made in accordance with market variations in the developed market economical countries.

4.1.2 Housing policy

As the policies for other industries, housing policy is used to intervene the property market by the Government. In the UK, the Government considers that all families should be able to obtain a decent home at a price within their affordability, which is the common housing issue in every country. In formulating the solutions for the housing problem, the policies have to be adopted to intervene the property development. The policy system related to this industry comprises land policy, housing policy, planning policy, construction policy, environment protection policy, finance policy, etc.

In the United States, according to Achtenburg and Marcuse (1968), the Government policies on housing have been well developed, aiming to reinforce the profitability of the housing sector and of the business community as well. The implementation of this policy has led to the improvement in housing has been achieved.

Malpass and Murie (1994) pointed out that housing policy can be defined in terms of measures designed to modify the quality, quantity, price and ownership and control of housing. These four elements indicate the scope of policy, but emphasized differently, represented in the various statements, which have been made by the Governments from time to time in the UK.

In Hong Kong, housing policy has also been well developed in the past decades and it has been playing a very important role in the social and economic development in the territory. However, Hui (2000) pointed out that the Government performance in housing provision can be categorized into the following major period: (a) the pre-1953 period, which was characterized by the apathy of the Government to meet the basic housing needs of the general public. The housing market was simply dominated by the relatively free interaction of demand and supply with minimal Government intervention; (b) the 1954-1972 period, which marked the beginning of direct Government intervention in the provision of housing; and (c) the post 1972 period, which was characterized by the continuous, direct and planned Government intervention through the implementation of the ten-year housing development plans. In the later period, Home-Ownership Scheme (HOS), Private Sector Participation Scheme (PSPS) and Long Term Housing Strategy (LTHS) were introduced in 1976, 1978 and 1987 respectively. In the Policy Address 1997, Hong Kong Government set out the Government housing targets, including to produce 85,000 flats a year (50,000 from the public sector and 35,000 from the private sector), to achieve a home ownership rate of 70% by 2007 and to reduce the average waiting time for public rental housing to 3 years by 2005. However, the negative impacts from implementing these policies have shown.

4.2 Policies and their Function to the Property Development in the PRC

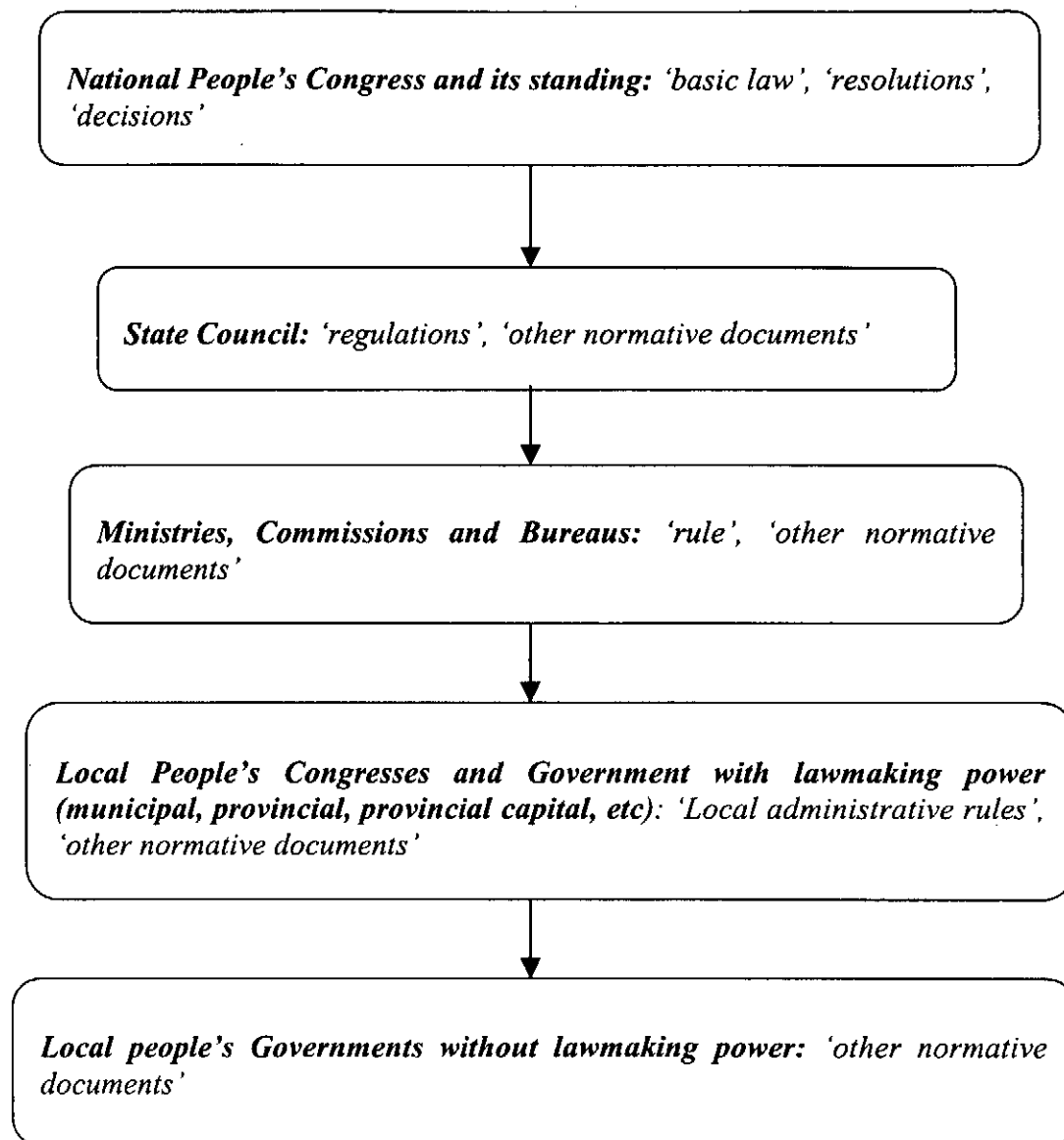
Generally speaking, China's legal system is still under development compared to the established systems elsewhere. In 1978, the leader of the country, Deng declared: 'In order to safeguard people's democracy, the law and legal system must be strengthened. Democracy needs to be legalized and institutionalized so that such laws and such a system would not be

changed merely because of a change in leadership or leaders' views and consideration.' For improving the legal system, there are many laws and policies, which have been or are being issued or amended in the country.

Similar to that in the developed countries or regions, the Chinese Government also considers housing as a very important social issue and has tried to establish the legal system to guide the property market. In the practice, the policy system relating to the property development in the PRC is considered as a vehicle for the Government to achieve the designated aim.

4.2.1 Policy system in the PRC

For understanding the legal system in the PRC, a briefly review relating to the law-making system is given here. Laws made by the National People's Congress or its standing committee, which are the highest authority, often are subject to adjustments. These regulations are usually made by the State Council for national effect and by local Government for local effect. The law-making system in the PRC can be illustrated as follows (Walker 1998).

Table 4.2. Hierarchy of Formal and Informal Lawmaking

In the PRC, the legal system was established and improved from implementing the Open Door Policy introduced in 1980s and a set of laws relating to the reform of economy was issued and revised, such as the Constitution of the PRC in 1982, Civil Law of the PRC in 1986, Land Administration Law of the PRC in 1986, Urban Planning Law of the PRC in

1989, etc., which were all amended or issued by National People's Congress. These laws form the foundation of the legal system in the country.

Below this level of laws, the State Council issues the administrative regulations and policies at the administration level of ministries, commissions and bureaus, such as the Regulation for the Implementation of Land Administration Law of the PRC in 1991, Interim Regulations of the PRC on Granting and Transferring the Right to the Use of State-owned Land in cities and Towns in 1991, all issued by the State Council etc.

Local administrations can also enact their own local regulations, which fall into three categories: regulations to implement the laws of the Central Government, regulations to supplement broad national laws and regulations that deal with local issues which are not covered by national legislation, such as the Administration Status about Real Estate in Shenzhen Economical Area issued by Shenzhen People's Government in 1995, the Regulation for Property Management issued by Tianjin People's Government in 2002, etc.

Enactments carry a variety of titles such as administrative regulations, provisions, measures, rules, orders and implementing rules, all of which are formulated as normative documents.

In this study, we only focus on the policy, which is the central and local administration regulations including the regulations, methods, articles, provisions, rules, etc. issued by the State Council and Local administrations, as a part of the legal system in China. Same as in

the developed countries or regions, the policy is adopted by the Government to standardize and intervene the social action in the PRC, such as the education, the housing, the finance, etc. The policy system was established and improved in the PRC only for a short time and in this period, the policies have been continuously issued and changed/revised by the relevant Government authorities in the practice.

4.2.2 Policy system to the property development in the PRC

The year 1949, the PRC Central Government was found and it was the watershed to the housing policy. The development of the housing system and the evolution of policy contrasted sharply with the previous Government period in both theory and practice. The housing problem was acute on the eve of new China. There was a severe housing shortage. At that time, public ownership was the guarantee not for profit making but for the general interest of the whole society.

Since China commenced the Open Door Policy in 1980s, land and the property development in some major cities, Special Economic Zones and Open Coastal Cities have undergone major changes with a view of improving the efficiency and land resource. It is the watershed for the property development in China and the reform of the construction industry commenced from that time.

As mentioned above, the improvement of the legal system to the property development is in progress. There are a lot of laws and policies issued for this industry along with the

development of the property market, including the regulations for land title and supply, housing reform, urban planning, environmental protection, pre-sale and sale of the commodity house, land finance, property management, title transfer and registration, etc. In the practice, many of them are issued by the State Council or relevant Government authorities for the administration purposes in the country, such as the Regulation for the Implementation of Land Administration Law of the PRC issued by the State Council in January 1991, Notice for Standardization relating to the Registration and Record of Commodity House Pre-sale issued by the Ministry of Construction in June 2002, etc.

Since a property development is implemented in a specific place at local level, the Local Governments also always issue the policies for the administration of the local property market, such as the Notice for Administration of the Commodity House Overseas or Local Sales issued by Beijing State Land Resource and Real Estate Administration Bureau in October 2000, Notice for Commodity House Pre-sale relating to the Adjustment of the Construction Project Condition issued by Guangdong Provincial Construction Bureau in January 2001, etc.

Regarding the property development in the PRC, the relevant Government authorities issued many policies for establishing and developing this industry, such as the Regulation for Pre-sale and Sale of the Commodity House issued by the Ministry of Construction in 1999 and revised in 2001. By this regulation, there are more restrict articles to the property developers. The same cases often happened for the change of the policy in the practice by Local Government, such as the Regulation for Property Management issued by Tianjin People's

Government in 2002. By these policies, the Government standardizes and improves the development of the property market and the construction industry in the PRC. The Administration Status about Real Estate in Shenzhen Special Economical Area is another typical example, which issued real estate policy in December 1995 and revised in December 1997 and April 2002 respectively. The Government has to amend or revise the policies from time to time in order to follow the fast changes and standardizing/improving of the property development industry and property market.

Such changes by new issuance or revision of policies brought the uncertainties and risks to the developers. For avoiding or reducing the loss by policy risks in the property development industry, a proper risk management strategy is very important. Thus, it is the aim here to analyze the occurrence possibilities and impact degrees of the policy risks in the property development in the PRC.

4.3 Distinguishing Feature of the Policy System between Developed Countries or Regions and the PRC

Since social system in the PRC is different to other developed countries or regions, there are many differences in legal system. Although the PRC has adopted the market economic and the system is developing towards the practice adopted in the developed countries and regions, the Government authorities are used to intervene the market by administrative methods.

4.3.1 Characteristics of the policy system in developed countries or regions

In the developed countries or regions, the legal system for property development has a long history and it has been well established and effectively implemented. In these systems, in line with the framework of laws, policy system will function as a tool to support the implementation of law. However, economic development will bring ever changes in the market. So the changes and revision of the policies often occur in the practice, such as the housing policy, the tax policy, etc. By changing policies, the Government can adjust the market for meeting the public interests. These changes or new issuances of policies are for adapting the development of the market and the need of the public interests. In general, when a legal system is properly established, the policy is only used as a regulator guiding the response to the changes of the market in the developed countries or regions.

4.3.2 Characteristics of the policy system in the property development regulating the PRC

In China, the Government has been trying to establish a proper legal system to meet the development of the country through engaging various reform programs. During the reform process, there are many changes in introducing and applying the laws and policies. Due to lack of experience and knowledge in operating marketing economy, the Chinese Government has to issue laws and policies on a trial basis in many cases. In this practice, the policies are often used as tools to adjust the mistake or error committed.

In the property development industry, the Chinese Government has issued a set of laws and policies to establish the property market with taking reference to the legal system in the

developed countries and regions. At the same time, reversions of the policies are often made for the need in the practice. Through the new issuances and revisions of the policies, certain items in regulations would be added or deleted, for aiming to correct the mistakes occurred and protecting the public interests and the health development of the industry.

The Government authorities have investigated various ways to standardize the property development industry and establish the health property market by the amendment of the policy in the property development sector. However, these changes or reversions of the policy often interfere the investment plan of the developers in the property development industry and cause risks and uncertainties. For example, the Regulation of Commodity House Sales stipulates that the developers have to compensate the purchasers if the gross floor area in the contract is different with the gross floor area surveyed, which restricts the sale of the commodity house. The developers have to face the punishments and the return of the investment will be affected.

The amendment of the policy is possible at any stage of the property development process in the PRC and it can affect the project layout plan, the costs of the construction, the demand and supply in the property market, etc. Thus there is always a policy risk in the property development. In order to protect the investment return, the property developers need to develop methods to manage such policy risk in the PRC, and it is one of the most important management functions for decision-making in the property investment.

4.4 Policy Risks in Developing Property in the PRC

As mentioned above, new issuance and reversions of the policies can be found at each stage of the property development process in the PRC, including the policies in land use, planning, environmental protection, finance, construction, property disposal, property management, etc. These changes can induce risks to the implementation of property development. It is considered that these risk factors have different impacts in different stage across the whole process of property development. In order to make an investment decision on a property development project, investors prefer to have proper estimation about the property market. The developers will consider avoiding or reducing the loss induced from policy risks in the practice.

In the practice, each policy risk factor displays differently at different stages of the property development process. The policy risk in the process of the property development can be classified at different stages and they are grouped under the categories: the economical policy risk, the financial policy risk, the land use system policy risk, the housing reform policy risk, the marketing industry policy risk, the environmental protect policy risk, construction regulation risk, the property title policy risk, the property market and property management policy risk, etc.

Whilst various literatures about risk and its management have been developed in the past, it appears that little works were contributed to study the policy risks in the property

development process, especially in the environment of Chinese property development industry.

From the above analysis, it can be found that the changes of the policies bring the policy risks and uncertainties in the property development in the PRC. When the Government changes a policy in the industry, there are always some uncertainties to the developers. Those uncertainties, which can be forecasted and presented with probability distribution pattern are defined as the policy risks in the property development process.

Although the policy system for property development industry in the PRC has been improving, there are many new issues and changes of the policy. Thus, it is believed that studying policy risk has the significance in contributing to the healthy development of the property development and proper risk management in the PRC.

Chapter V:

Survey Study to the Policy Risks In the Process of Developing Property In the PRC

CHAPTER V - SURVEY STUDY TO THE POLICY RISKS IN THE PROCESS OF DEVELOPING PROPERTY IN THE PRC

As discussed before in this study, the property development process in the PRC can be divided into four stages namely, feasibility study, construction preparation, construction process and property disposal and property management. It is considered that policy risks exist due to the change of the policies issued by relevant Government Authorities in each stage of the property development process in the PRC. For understanding the major policy risks in the PDPM, a constructive survey has been undertaken in this study for data collection. From the literature review and the professional interviews to selected practitioners, questionnaires are developed for collecting information.

5.1 List of General Uncertainties across the Property Development Process in the PRC

There are many policy related uncertain factors affecting the property development in the PRC. Pursuant to the other researchers' literatures and practical interview taken, a list of uncertain factors in the property development are developed and presented as follows, shown in Table 5.1 (Shen et al, 2001; Li et al, 1998).

Table 5.1. Policy Uncertain Factors in the Property Development in the PRC

1.	Change of the Government policy related to economic factors
2.	Change of the Government restrict policy to the land usage
3.	Change/adjustment of the Government policy related to housing policy
4.	Change of the Government policy related to land supply

5.	Change of the Government policy related to finance
6.	Change of the Government policy related to tax and revenue
7.	Change of the Government policy related to planning permission
8.	Change of the Government policy related to the long term environmental
9.	Change of the Government policy related to the short term environmental
10.	Change of the Government policy related to the construction material supply and price
11.	Change of the Government policy related to import of the construction material
12.	Change of the Government policy related to labour policy
13.	Change of the Government policy related to the disposal of the property in the market
14.	Change of the Government policy related to the type of the development company
15.	Change of the Government policy related to type of the property development project
16.	Change of the Government policy related to investment of the property development project
17.	Change of the Government policy related to scope of the property development project
18.	Change of the Government policy related to the restrict of the investment district
19.	Change of the Government policy related to the restrict of the construction term
20.	Change of the Government policy related to the title transfer of the property
21.	Change of the Government policy related to the registration of property title
22.	Change of the Government policy related to the price of the state-owned land use rights
23.	Change of the Government policy related to the property market
	Change of the Government policy related to the property second hand market
24.	Change of the Government policy related to the preferential interest or the property development project
25.	Change of the Government policy related to the long term urban plan
26.	Change of the Government policy related to the short term urban plan
27.	Change of the Government policy related to the pre-sale of the property
28.	Change of the Government policy related to the sale of the property
29.	Change of the Government policy related to the property management

30.	Change of the Government policy related to construction tendering
31.	Change of the condition on construction contracts
32.	Change of the Government policy related to project supervise
33.	Change of the Government policy related to the standard of the acceptance of the completed construction quality
34.	Change of the Government policy related to the restrict of the construction term
35.	Change of the Government policy to project contract
36.	Change of the Government policy related to the fitting of the property
37.	Change of the Government policy related to the housing fund
38.	Change of the Government policy related to the mortgage rate
39.	Change of the Government policy related to mortgage and financial percentage
40.	Change of the Government policy related to the stamp duty in the property transfer
41.	Change of the Government policy related to add value tax of the property title transfer
42.	Change of the Government policy related to the fees for property development transfer
43.	Change of the Government policy related to the property title document insurance

The above uncertainty factors do occur in the property development process in the PRC and cause impacts. Those uncertainties, which cause certain pattern of impacts will be particularly focused on in the next section, being defined as policy risks.

5.2 List of the Policy Risks across the Property Development Process in China

According to the definition defined in this study, risk is a special type of the uncertainty. There are various classifications about risk, such as financial risk, legal risk, management risk, market risk, policy and political risk, technical risk, etc. By referring to the uncertain factors

in Table 5.1, a list of policy risk factors during four stages of property development process in the PRC are formulated, as shown in Table 5.2.

Table 5.2. Policy Risk Factors in the Property Development in the PRC

1.	Change of the Government policy related to economic factors
2.	Change of the Government restrict policy to the land usage
3.	Change/adjustment of the Government policy related to housing policy
4.	Change of the Government policy related to land supply
5.	Change of the Government policy related to finance
6.	Change of the Government policy related to tax and revenue
7.	Change of the Government policy related to land use planning permission
8.	Change of the Government policy related to construction work planning permission
9.	Change of the Government policy related to the long term environmental
10.	Change of the Government policy related to the short term environmental
11.	Change of the Government policy related to the disposal of the property in the market
12.	Change of the Government policy related to the type of the development company
13.	Change of the Government policy related to type of the property development project
14.	Change of the Government policy related to investment of the property development project
15.	Change of the Government policy related to the restrict of the investment district
16.	Change of the Government policy related to the restrict of the construction term
17.	Change of the Government policy related to construction tendering
18.	Change of the Government policy related to project supervise
19.	Change of the Government policy related to the standard of the acceptance of the completed construction quality
20.	Change of the Government policy to project contract
21.	Change of the Government policy related to the title transfer of the property
22.	Change of the Government policy related to the registration of property title

23.	Change of the Government policy related to the price of the state-owned land use rights
24.	Change of the Government policy related to the restrict of the property market
25.	Change of the Government policy related to the property second hand market
26.	Change of the Government policy related to the preferential interest or the property development project
27.	Change of the Government policy related to the long term urban plan
28.	Change of the Government policy related to the short term urban plan
29.	Change of the Government policy related to the pre-sale of the property
30.	Change of the Government policy related to the sale of the property
31.	Change of the Government policy related to the property management
32.	Change of the Government policy related to the housing fund
33.	Change of the Government policy related to the mortgage rate
34.	Change of the Government policy related to mortgage and financial percentage
35.	Change of the Government policy related to the stamp duty in the property transfer
36.	Change of the Government policy related to add value tax of the property title transfer
37.	Change of the Government policy related to the property title document insurance

5.3 Developing the Questionnaire for Surveying Policy Risks across all Stages in the PDPM

To analyze the characteristics of the policy risk factors in the PDPM, a questionnaire was formulated to collect the data. In this questionnaire, the questions about the significance of each policy risk are presented to respondents. A sample of the questionnaire is attached in Appendix I.

5.3.1 Policy risks in the questionnaire across all stages in the PDPM

In the questionnaire for surveying, 15 policy risk factors are comprised in the Stage I and 20, 9 and 11 policy risk factors in Stage II, III and IV of the PDPM respectively, as shown in Table 5.3.

Table 5.3. Policy Risk Factors in the Questionnaire for this Study

<i>Stage I: Feasibility Study and Decision Making:</i>	
A-1	Change of the Central or Local Government policy related to economic factors, such as Micro-control, etc
A-2	Change of the Central or Local Government policy related to land supply, such as restriction or relaxation
A-3	Change of the Central or Local Government policy related to housing policy, such as support or non-support
A-4	Change of the Central or Local Government policy related to finance, such as interest rate
A-5	Change of the Central or Local Government policy related to finance, such as change of repayment period
A-6	Change of the Central or Local Government policy related to finance, such as change of the portion of house loan
A-7	Change of the Local Government policies related to the project support, such as guarantee return
A-8	The influence of the property development related to the Local Government policies, such as the favour terms offered to the Anju Project
A-9	Change of the Local Government revenue policies related to the property development
A-10	Change of the Local Government policies related to the property development
A-11	Change of the Government policies related to qualifications of the property developers, such as wholly-owned, joint venture
A-12	Change of the Government policies related to the restriction of the capital investment of the property developers
A-13	Change of the Government policies related to fund raising, such as Local market or overseas market
A-14	Change of the Government policies related to the environmental protection
A-15	Change of the planning policies and building policies

Stage II: Construction Preparation:

B-1	Change of the Central or Local Government policies related to land supply, such as restriction or relaxation
B-2	Change of the Central or Local Government policies related to housing system, such as the restriction on the type and the size of property development
B-3	Change of the Local Government policies related to land use policy, such as with premium or without premium
B-4	Change of the Local Government policies related to the land supply, such as the transfer of land use rights policy: auction, tender and by agreement
B-5	Change of the Local Government policies related to the price of transfer the land use rights, such as waive the transfer fees
B-6	Change of the Government policies related to land use, such as planning policy
B-7	Change of the Government policies related the revise of mid- or long-term plan
B-8	Change of the Government policies related to land department policy, such as the period of land department, the condition for transfer of land use rights
B-9	Change of Government policies related to planning policy, such as plot ratio, site coverage and green ratio
B-10	Caused by the need for the construction of urban facilities, the Government needs to acquire the land use rights from the development
B-11	Change of the Local Government policies related to special condition in the projects, such as favour terms and conditions specially offered to the developers for some selected projects
B-12	Change of the Central or Local Government policies related to influence to the market by the change of financial policy
B-13	Change of the Central or Local Government related to the project finance
B-14	Change of the Government policies related to planning policy, such as plot ratio, building density, height restriction
B-15	The Government requirement in related to the property developers in property development, such as access road, hospital, school
B-16	Change in Government environmental policies
B-17	Change of the building requirement – approval procedure and conditions
B-18	Change of the Government policies in related to house demolitions policy or reform policy
B-19	Change of the Government policies in related to land compensation
B-20	Change of the Government policies in related to taxation, such as land appreciation tax

Stage III: Construction Process:

C-1	Change of the construction tendering policy
C-2	Change of the Central or Local Government policies in related to financing policy and influence to the cost of the construction
C-3	The Government support on project financing, such as bank loan
C-4	Change of Government environmental policies
C-5	Regulation on speculating construction procedure
C-6	Regulation on the standard of the acceptance of the completed construction quality
C-7	Change of the Local regulation on real estate taxation
C-8	Change of the regulations on construction in related to project development
C-9	Change of the conditions on construction contracts

Stage IV: Property Disposal and Property Management:

D-1	Change of the building ownerships policies, such as confirmation of the ownership and execution
D-2	Change of the Government policies related in the building ownership, such as condition or regulations on transfer of the ownership
D-3	Change of the Central or Local Government policies in related to financing policy, such as guarantee, housing fund and policies
D-4	Change of the Local Government policies in related to special project, such as the guarantee return
D-5	Change of the Government financing policies in related to property development, such as mortgage term, ratio and interests
D-6	Change of the Government policies in related to property disposal, such as the definition of selling area
D-7	Change of the pre-sale policies, such as the terms and conditions for pre-sale
D-8	Change of the local or overseas sell policies in the property development
D-9	Change of the Local Government policies in related to taxations, such as the reduction of property tax
D-10	The implementation and change of the policies in related to property management
D-11	The change of the Government policy related to the land supply, such as the land price, transfer way, etc.

This table shows that there are more policy risk factors in the first two stages in the PDPM. This is mainly because of more concerns have been given at the early stages of a development project.

The questionnaire comprises two parts: Part I concerns the occurrence possibility about the policy risk factors in the PDPM and Part II concerns the impact degree of the policy risks to the property development.

5.3.2 Occurrence possibility about the policy risks in each stage of the PDPM

In Part I, five intervals were designed for indicating the occurring frequency of each risk, that is 0~20%, 20~40%, 40~60%, 60~80% and 80~100%. The value of percentage implies the degree of the possibility of a specific policy risk factor occurring in the property development. A sample of this part in the questionnaire is given as Table 5.4.

Table 5.4. Part I of the Survey Questionnaire

<i>Risk</i>	<i>Occurrence Possibility of Risk</i>				
	0~20%	20%~40%	40%~60%	60%~80%	80%~100%
1					
2					
3					
4					
5					

5.3.3 Impact degree of the policy risks in each stage of the PDPM

In designing Part II of this questionnaire, it is considered that the policy risks can bring negative or positive effect to the property development. For helping respondents to assess the impact of each individual policy risk factor, ten grades of impacts are designed in the questionnaire, range from less than -100% to more than 100%. These ten grades were designed to ten intervals, including range *a* is less than -100%; range *b* is -75%~-100%; range *c* is -50%~-75%; range *d* is -25%~-50%; range *e* is 0~-25%; range *f* is 0~25%; range *g* is 25%~50%; range *h* is 50%~75%; range *i* is 75%~100%; and range *j* is more than 100%.

The value of percentage implies the impact degree of a specific policy risk to the development cost in the property development process. A sample of this part in the questionnaire is given as Table 5.5.

Table 5.5. Part II of the Survey Questionnaire

<i>Risk</i>	<i>Impact Degree of Risk</i>									
	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>	<i>i</i>	<i>j</i>
1										
2										
3										
4										
5										

5.4 Summary of Data Collection

The questionnaires were sent to collect the data and some interviews with the respondents were carried out at the same time.

5.4.1 Data collection

The survey was conducted from September 2000 to May 2002. The survey questionnaires were distributed to 90 professionals, who were working in the organizations based in Hong Kong or Mainland China, such as New World China Land Ltd, Chesterton Petty Ltd, Shenzhen Daxin International Industry Ltd, Tsinghua University, Peking University, Institute of Project Planning & Research, Ministry of Machinery Industries, etc. A total of 32 effective replies were received, which represents a response rate of 35.6%. All respondents had good experience in the property development industry or relevant industry and assuming senior positions such as project managers, consultants, engineers, professors, etc. The data obtained from the returned questionnaire include two parts, namely, the occurrence possibility and the impact degree of the policy risk factors in the PDPM.

5.4.2 Data Summary on occurrence possibility of the policy risk factors

The data about the occurrence possibility of the policy risks from the questionnaire is listed as following table by stage of the property development process:

Table 5.6 Responses on Occurrence Possibility of Policy Risks in the PDPM***Stage I: Feasibility Study and Decision Making:***

<i>Risk</i>	<i>Occurrence Possibility of Risk</i>				
	0~20%	20%~40%	40%~60%	60%~80%	80%~100%
A-1	4	14	6	4	5
A-2	2	7	10	13	1
A-3	1	6	5	14	7
A-4	0	10	15	6	2
A-5	3	11	13	4	2
A-6	1	18	10	2	2
A-7	8	16	3	5	1
A-8	1	8	11	8	5
A-9	3	18	8	2	2
A-10	14	12	4	1	2
A-11	19	8	3	2	1
A-12	12	16	3	0	2
A-13	15	11	5	1	1
A-14	1	10	15	3	4
A-15	2	18	7	4	2

Stage II: Construction Preparation:

<i>Risk</i>	<i>Occurrence Possibility of Risk</i>				
	0~20%	20%~40%	40%~60%	60%~80%	80%~100%
B-1	2	8	18	3	2
B-2	3	10	14	4	2
B-3	13	7	6	4	3
B-4	3	7	13	6	4

B-5	4	16	5	6	2
B-6	3	11	14	2	3
B-7	4	19	2	6	2
B-8	5	15	10	2	1
B-9	1	5	19	6	2
B-10	10	16	5	1	1
B-11	9	17	5	0	2
B-12	11	9	5	5	3
B-13	7	12	3	9	2
B-14	3	18	5	5	2
B-15	1	17	3	7	5
B-16	2	9	6	12	4
B-17	5	16	8	2	2
B-18	2	14	8	5	4
B-19	3	17	10	2	1
B-20	5	10	13	3	2

Stage III: Construction Process:

Risk	Occurrence Possibility of Risk				
	0~20%	20%~40%	40%~60%	60%~80%	80%~100%
C-1	6	6	17	1	3
C-2	2	19	8	1	3
C-3	9	15	4	3	2
C-4	1	5	15	8	4
C-5	2	15	10	4	2
C-6	2	17	9	2	3
C-7	3	18	7	1	4
C-8	11	14	4	3	1
C-9	4	16	7	1	5

Stage IV: Property Disposal and Property Management:

<i>Risk</i>	<i>Occurrence Possibility of Risk</i>				
	0~20%	20%~40%	40%~60%	60%~80%	80%~100%
D-1	5	20	4	2	2
D-2	13	11	4	4	1
D-3	2	16	6	5	4
D-4	16	6	7	2	2
D-5	3	16	7	3	4
D-6	9	16	6	0	2
D-7	2	11	13	4	3
D-8	6	20	4	1	2
D-9	6	15	8	1	3
D-10	1	17	7	4	4
D-11	0	1	12	5	1

Table 5.6 shows the summary of response results. Based on the data in Table 5.6, an occurrence probability index can be calculated against these policy risks.

5.4.3 Data summary on impact degrees of policy risks

The data summary relating to the impact degrees of policy risks is given in Table 5.7. It can be seen from the survey that some risks have little or not impacts at some stages in the property development process in the PRC. This observation will be further discussed in later sections.

Table 5.7. Responses on the Impact Degrees of Policy Risks in the PDPM**Stage I: Feasibility Study and Decision Making:**

Risk	Impact Degree of Risk									
	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>	<i>i</i>	<i>j</i>
A-1	0	0	0	2	1	8	6	13	2	1
A-2	0	0	0	1	4	5	7	14	2	0
A-3	0	0	0	1	4	12	6	4	5	1
A-4	0	0	0	2	2	8	14	7	0	0
A-5	0	0	0	0	8	8	12	2	3	0
A-6	0	0	0	0	4	9	14	5	1	0
A-7	0	0	1	0	2	8	6	12	5	0
A-8	0	0	0	0	2	9	13	7	2	0
A-9	0	0	0	1	3	13	12	3	1	0
A-10	0	0	1	1	4	19	5	3	0	0
A-11	0	0	0	2	4	17	7	3	0	0
A-12	0	0	0	1	4	9	15	3	1	0
A-13	0	0	1	1	5	8	12	4	2	0
A-14	0	0	5	0	2	9	3	11	3	0
A-15	0	0	1	1	3	7	13	7	1	0

Stage II: Construction Preparation:

Risk	Impact Degree of Risk									
	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>	<i>i</i>	<i>j</i>
B-1	0	0	0	4	0	5	16	5	2	1
B-2	0	0	2	0	2	6	6	14	0	3
B-3	0	0	0	1	2	5	12	4	7	2
B-4	0	0	0	0	2	6	15	8	1	1

B-5	0	0	0	0	2	6	7	16	2	0
B-6	0	1	0	1	5	5	8	5	6	2
B-7	0	0	0	1	1	4	15	8	3	1
B-8	0	1	0	0	3	8	13	7	0	1
B-9	0	0	0	0	6	6	11	8	2	0
B-10	0	0	2	0	3	6	6	6	8	2
B-11	0	0	0	3	3	8	12	7	0	0
B-12	0	0	0	0	3	15	9	4	1	1
B-13	0	0	0	0	3	5	19	4	2	0
B-14	0	1	0	1	0	8	6	11	5	1
B-15	0	0	0	1	3	7	14	5	3	0
B-16	0	0	0	0	3	9	14	5	2	0
B-17	0	0	0	0	5	14	9	4	1	0
B-18	0	0	0	0	6	5	10	11	1	0
B-19	0	0	0	1	2	15	8	6	1	0
B-20	0	0	0	0	2	8	15	6	2	0

Stage III: Construction Process:

Risk	Impact Degree of Risk									
	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>	<i>i</i>	<i>j</i>
C-1	0	0	1	1	7	15	4	4	1	0
C-2	0	1	2	2	5	4	17	2	1	0
C-3	0	0	1	1	5	6	16	4	0	0
C-4	0	0	1	1	3	4	18	5	2	0
C-5	0	0	0	0	2	18	8	5	0	0
C-6	0	0	0	0	3	17	8	5	0	0
C-7	0	0	2	2	7	7	11	5	1	0
C-8	0	0	1	1	2	18	7	4	1	0
C-9	0	0	1	1	8	17	3	2	1	1

Stage IV: Property Disposal and Property Management:

<i>Risk</i>	<i>Impact Degree of Risk</i>									
	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>	<i>i</i>	<i>j</i>
D-1	0	1	1	3	2	17	8	1	0	0
D-2	0	0	2	2	5	16	6	2	0	0
D-3	0	0	0	1	1	12	13	5	1	0
D-4	0	0	0	2	9	11	5	6	0	0
D-5	0	0	0	2	4	13	8	6	0	0
D-6	0	0	0	0	4	15	10	4	0	0
D-7	0	1	0	1	4	14	7	5	1	0
D-8	0	1	0	0	4	16	7	5	0	0
D-9	0	0	0	0	3	11	14	5	0	0
D-10	0	0	1	2	5	17	3	4	1	0
D-11	0	0	0	0	0	0	7	12	0	0

Based on the data in Table 5.7, an index can be calculated, indicating the impact degrees of the policy risks in the PDPM. Both probability index and impact index can be used to analyze the characteristics of the policy risks in the PDPM.

Chapter VI:

Analysis to Major Policy Risks In the PDPM

CHAPTER VI - ANALYSIS TO MAJOR POLICY RISKS IN THE PDPM

In the previous chapter, valuable data about the policy risks in the PDPM have been collected from survey. The analysis on the data will employ statistical techniques. The benefits of using statistical techniques for conducting data analysis include quantitative results and the presentations of table or diagram formats. They will be useful and objective in supporting conclusions. Results can also be shown in a way that they can be easily understood.

6.1 Analysis Model Methodology for Conducting the Analysis

Statistics analysis is a technical method widely used to ascertain the characteristics of cost variation in the property development. In similar analogy, this approach is used to ascertain two measures, that is, the occurrence possibility and the impact degree of all policy risks. A comprehensive impact degree (CID) of each risk will then be calculated according to these two measures. By using CID, the major policy risks can be identified. The calculations of these measures will be discussed in the following sections. Several basic statistical terms will be described firstly.

6.1.1 Arithmetic mean

The arithmetic mean is a common method in statistics used to measure the most typical value. It is the average of a set of scores obtained by adding all the scores together and dividing by the number of scores. Using simple symbols we can put this relationship together as $RS(X_i)$ in the form of a simple equation:

$$RS(X_i) = \frac{\sum X_i}{N} \quad 6.1$$

where $RS(X_i)$: denotes arithmetic mean; X_i : a specific value and N : total number of values (CEM, 1997).

The arithmetic mean is used here as an index to describe the CID of each policy risks in the PDPM for this study.

6.1.2 Standard deviation

Standard deviation is another commonly used statistical term. Quoting the standard deviation of a distribution is a way of indicating a kind of ‘average’ amount by which all the values deviated from the arithmetic mean. The greater the dispersion is, the bigger the deviations and the bigger the standard deviation is. The formula for standard deviation σ of a variable is expressed as following:

$$\sigma_i = \sqrt{D(X_i)^2} = \sqrt{RS\{[X - RS(X_i)]^2\}} \quad 6.2$$

The standard deviation σ_i is adopted to describe the dispersion of the variations among individual values of a variable (CEM, 1997). Standard deviation is used here to indicate the description of the dispersion among the respondents among their judgments.

6.1.3 Co-standard deviation of variation

In the practical application of the standard deviation σ , it should be noted that problems could arise when the arithmetic mean is significantly different from one variable to another. The most common way of eliminating this problem is to divide the standard deviation by the expected value to obtain a measure called the co-standard deviation of variation for measuring the distribution of a variable.

The value of the co-standard deviation of variation φ is derived from the formula:

$$\varphi_i = \frac{RS_i}{\sigma_i} \quad 6.3$$

where φ_i = co-standard deviation; RS_i = arithmetic mean of a concerned variable (risk factor); and σ_i = standard deviation of the concerned factor (Shen 1990).

In general, the co-standard deviation of variation is used to compare the distribution risk among different options whose expected values are not close.

6.1.4 Chart

Chart is one of statistical tools for demonstrating data analysis. Radar chart and bar chart are among then common charts, and they will be adopted for the analysis in this study.

6.1.4.1 Radar chart

Radar charts are useful when one wants to look at several different factors all related to one item (SkyMark, 1997-2002). Radar charts have multiple axes along which data can be plotted. For example, you could use a radar chart to compile data about a wide receiver on a professional football team. On one axis, you could plot the percentage of passes caught. Another axis would show his yards per completion; another, his completions per 100 plays; another, blocks made; and a final axis might show his interceptions. If a team did this for all their wide receivers, they could easily spot the best player as well as each player's strengths and weaknesses. A sample of a radar chart for 5 football players can be shown in Figure 6.1.

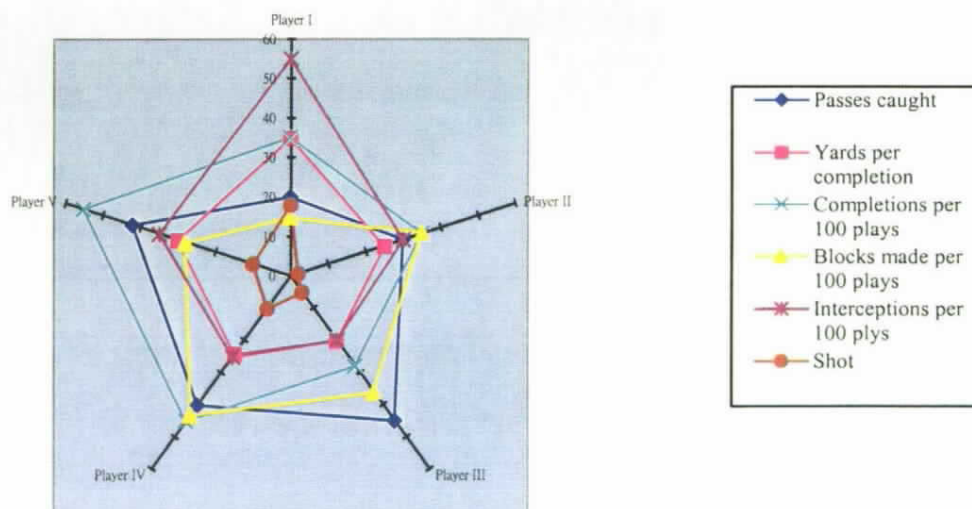


Figure 6.1 A Sample of Radar Chart for Five Football Players

In a radar chart, a point close to the center on any axis indicates a low value. A point near the edge is a high value. In the football example, we would high marks near the outside due to

the nature of what was being measured. In other scenarios, you might want points near the center, or low values. When you are interpreting a radar chart, check each axis as well as the overall shape to see how well it fits your goals (SkyMark, 1997-2002).

For using the radar chart, the following statistics are calculated:

Mean:	the average of all the values in the series.
Maximum:	the maximum value in the series.
Minimum	the minimum value in the series.
Sample Size	the number of values in the series.
Range	the maximum value minus the minimum value.
Standard Deviation	indicates how widely data is spread around the mean

Since Radar Chart can display relevant factors in a single diagram easily and clearly, it is adopted for showing the characteristics of the policy risks.

6.1.4.2 Bar chart

A bar chart is a way of summarizing a set of categorical data. It is often used in exploratory data analysis to illustrate the major features of the distribution of the data in a convenient form. It displays the data using a number of rectangles, of the same width, each of which represents a particular category. The length (and hence area) of each rectangle is

proportional to the number of cases in the category it represents, for example, age group, and religious affiliation. Bar charts are used to summarize nominal or ordinal data (Easton & McColl, 1997).

6.2 Risk Significance Model

Pursuant to the above definitions and the statistic methodologies, the significance score (the CID) of each factor assessed by respondents can be calculated first. Following that, Co-standard Deviation of CID will be calculated and used to identify the major policy risk factors.

6.2.1 The comprehensive impact degree of each factor

To assess the relative significance among risk factors, an alternative for calculating the significance score is to multiply the occurrence probability by the degree of impact. Thus, the CID for each factor, assessed by each respondent can be obtained through the model:

$$S_{ij} = f(\alpha_{ij}, \beta_{ij}) = \alpha_{ij} \beta_{ij} \quad 6.4$$

where S_{ij} = significance score assessed by respondent j for policy risk factor i ;
 α_{ij} = probability of occurrence of a policy risk factor i , assessed by respondent j ; and β_{ij} =
degree of impact of a policy risk factor i , assessed by respondent j .

By applying this method in this study, the respondents were asked to respond to the two attributes for each risk factor. For considering α , the respondents were required to judge the probability level of risk factor occurrence by selecting one from among five levels. For considering β , the respondents were required to judge the degree of impact if the policy risk factor concerned occurs, by selecting one from among ten grades.

By averaging scores from all responses, it is possible to get an arithmetic mean; average significance score for each factor, and this arithmetic mean is called the factor index score and is used to rank among all factors. The model for the calculation of risk index score can be written:

$$RS_i = \frac{\sum_{j=1}^N S_{ij}}{N} \quad 6.5$$

where RS_i = index score for factor i , which is the CID of the factor i and S_{ij} = significance score assessed by respondent j for risk factor i .

The CID of each policy risk factor in each stage of property development process can be shown in the Table 6.1, measured by the arithmetic means of the comprehensive of the occurrence possibility and impact degree of each risk.

In the calculation of S_{ij} in this study, the five-point score for α_{ij} and ten-point score for β_{ij} were adopted as the middle of each range:

$\alpha_1=10\%$; $\alpha_2=30\%$; $\alpha_3=50\%$; $\alpha_4=70\%$; $\alpha_5=90\%$; and

$\beta_1=-100\%$; $\beta_2=-87.5\%$; $\beta_3=-62.5\%$; $\beta_4=-37.5\%$; $\beta_5=-12.5\%$;

$\beta_6=12.5\%$; $\beta_7=37.5\%$; $\beta_8=62.5\%$; $\beta_9=87.5\%$; $\beta_{10}=100\%$.

Table 6.1 demonstrates the comprehensive occurrence impact possibility RS_i of these policy risk factors is a distribution of the arithmetic mean in the range between 2.65% to 27.63%.

In the statistic analysis, the arithmetic mean RS_i is an index, which can describe the factors in quantity. The standard deviation σ_i is another index for showing the dispersion of the respondents' opinions. By the statistical analysis method, the bigger the standard deviation of a policy risk factor, the lower the importance of the factor in the PDPM.

Table 6.1 Comprehensive Impact Degrees in the PDPM

	Minimum	Maximum	$RS_i =$ Mean	$\sigma_i =$ Std. Deviation	$\varphi_i = \frac{RS_i}{\sigma_i}$ Co-std. Deviation
--	---------	---------	------------------	--------------------------------	--

Stage I: Feasibility Study:

A-1	0%	100%	20.04%	18.10%	1.11
A-2	0%	100%	18.48%	17.91%	1.03
A-3	0%	100%	22.99%	24.58%	0.94

A-4	0%	100%	15.38%	13.47%	1.14
A-5	0%	100%	12.58%	18.50%	0.68
A-6	0%	100%	12.88%	15.20%	0.85
A-7	0%	100%	13.33%	15.79%	0.84
A-8	0%	100%	20.45%	18.59%	1.10
A-9	0%	100%	8.71%	14.23%	0.61
A-10	0%	100%	5.61%	16.14%	0.35
A-11	0%	100%	4.02%	17.15%	0.23
A-12	0%	100%	7.95%	15.27%	0.52
A-13	0%	100%	7.12%	15.30%	0.47
A-14	0%	100%	11.97%	24.31%	0.49
A-15	0%	100%	12.95%	16.17%	0.80

Stage II: Construction Preparation:

B-1	0%	100%	16.69%	21.72%	0.95
B-2	0%	100%	18.22%	19.52%	0.93
B-3	0%	100%	14.62%	15.89%	0.92
B-4	0%	100%	20.95%	17.60%	1.19
B-5	0%	100%	18.41%	14.88%	1.24
B-6	0%	100%	18.56%	23.71%	0.78
B-7	0%	100%	17.08%	16.04%	1.07
B-8	0%	100%	11.40%	12.33%	0.92
B-9	0%	100%	18.64%	17.42%	1.07
B-10	0%	100%	10.38%	18.69%	0.56
B-11	0%	100%	6.06%	16.89%	0.36
B-12	0%	100%	9.89%	16.64%	0.59
B-13	0%	100%	16.29%	14.68%	1.11
B-14	0%	100%	17.54%	16.54%	1.06
B-15	0%	100%	18.48%	20.05%	0.92
B-16	0%	100%	18.79%	14.94%	1.26
B-17	0%	100%	9.85%	16.56%	0.59

B-18	0%	100%	15.53%	16.32%	0.95
B-19	0%	100%	9.92%	12.79%	0.78
B-20	0%	100%	15.15%	15.30%	0.99

Stage III: Construction Process:

C-1	0%	100%	7.65%	19.10%	0.40
C-2	0%	100%	5.08%	23.32%	0.22
C-3	0%	100%	6.52%	18.61%	0.35
C-4	0%	100%	19.02%	16.72%	1.14
C-5	0%	100%	10.68%	13.97%	0.76
C-6	0%	100%	11.14%	16.10%	0.69
C-7	0%	100%	9.47%	17.65%	0.54
C-8	0%	100%	7.73%	15.66%	0.49
C-9	0%	100%	7.46%	19.18%	0.39

Stage IV: Property Disposal and Property Management:

D-1	0%	100%	3.18%	20.85%	0.15
D-2	0%	100%	2.65%	21.12%	0.13
D-3	0%	100%	12.42%	17.04%	0.73
D-4	0%	100%	4.02%	19.48%	0.21
D-5	0%	100%	7.42%	18.20%	0.41
D-6	0%	100%	7.05%	13.63%	0.52
D-7	0%	100%	7.95%	20.55%	0.39
D-8	0%	100%	5.61%	17.70%	0.32
D-9	0%	100%	9.32%	12.56%	0.74
D-10	0%	100%	5.23%	20.90%	0.25
D-11	0%	100%	27.63%	19.16%	1.44

For easy understanding the characteristics of these policy risks, the radar chart is a good presentation for the result to describe the arithmetic mean of each factor RS_i in a coordinate.

Charts make it easy for users to see comparisons, patterns, and trends in data. Radar Chart shows distribution of several parameters and their relation between each other. The Radar Chart is an audio-visual. In a Radar Chart, one coordinate axis can represent a factor and show the CID of different factors in the same stage of the property development process. With the Radar Chart, the impact degrees of the risk factors can be compared with each other.

In the same way, the Radar Chart also can be used to describe the unity of the respondents by standard deviation σ_i of each factor in the study. In this study, we piled up the arithmetic mean RS_i and standard deviation σ_i of the CID for each policy risk factor in each stage of the PDPM by Radar Chart. (Figure 6.2.1 to 6.2.4)

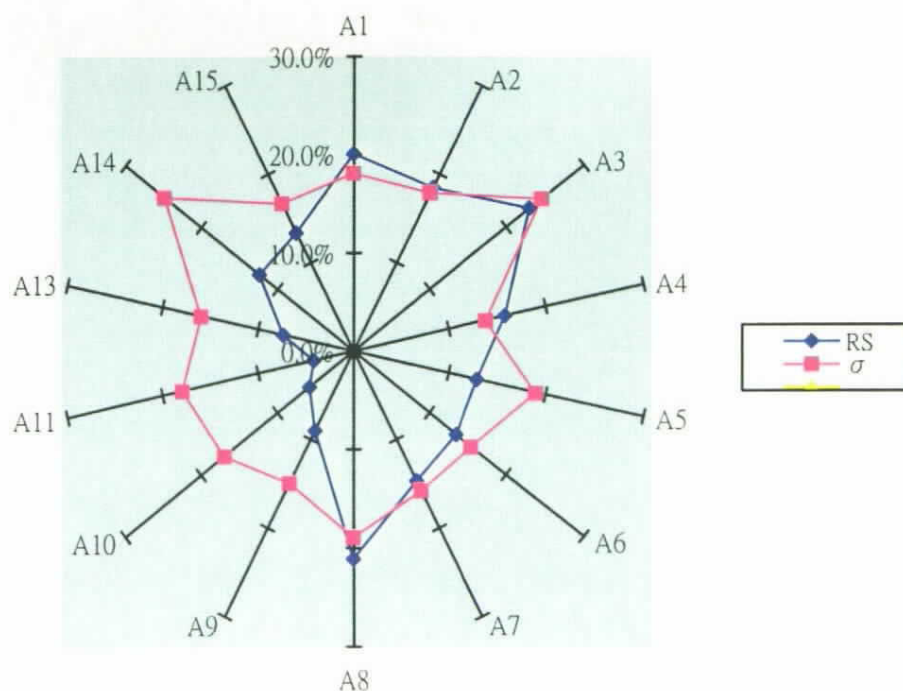


Figure 6.2.1 Characteristics of the Policy Risk Factors in Stage I

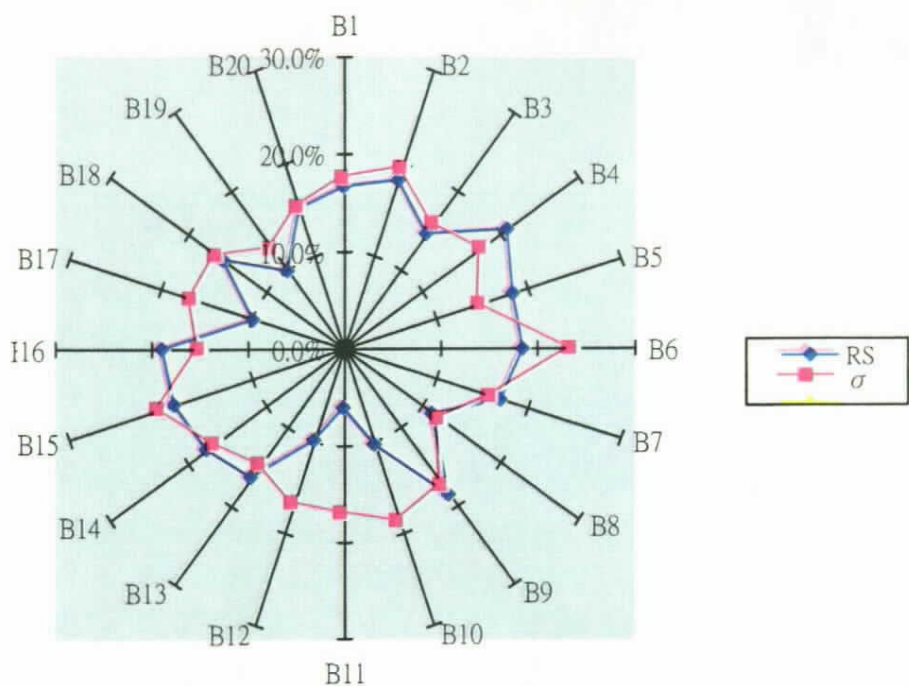


Figure 6.2.2 Characteristics of the Policy Risk Factors in Stage II

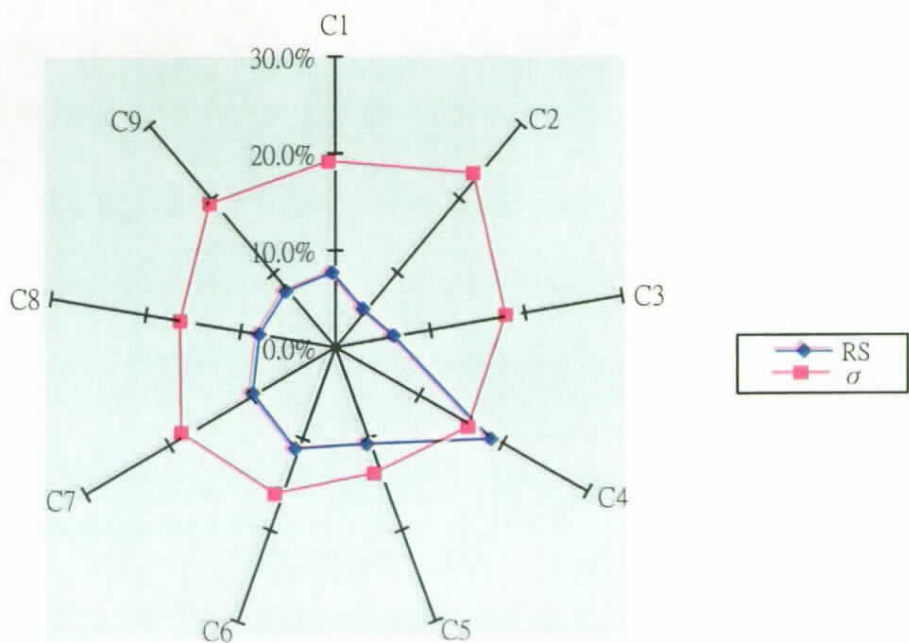


Figure 6.2.3 Characteristics of the Policy Risk Factors in Stage III

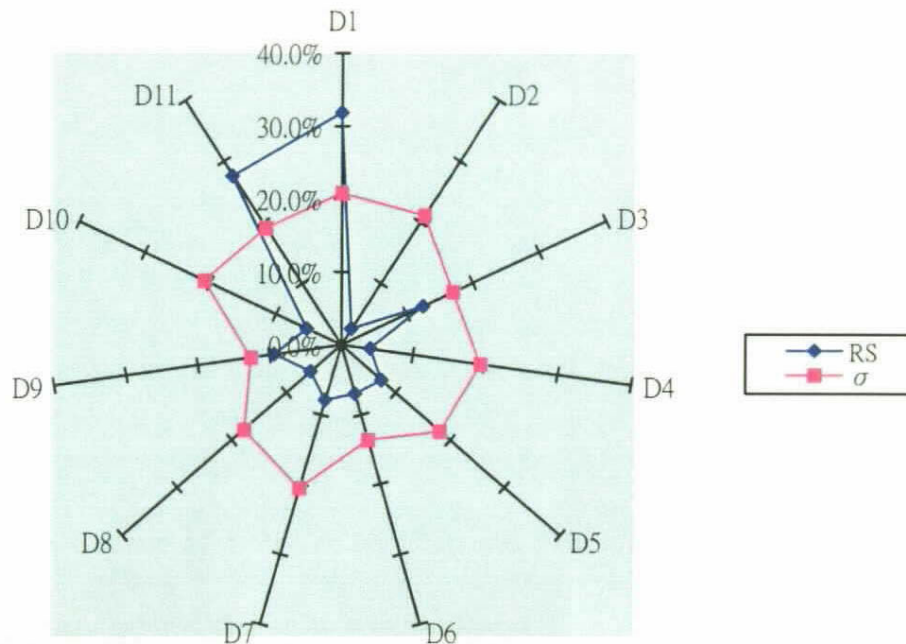


Figure 6.2.4 Characteristics of the Policy Risk Factors in Stage IV

In the above diagrams, it could be understood clearly that the degree of the arithmetic mean RS_i and standard deviation σ_i of each policy risk factor is not unity. The arithmetic means of some policy risk factors are at a higher degree but with lower standard deviations.

6.2.2 Major policy risks

From Table 6.1 and Figure 6.2.1 to 6.2.4 we can find that the average score, the arithmetic mean, of some policy risk factors are not in a unity of the standard deviation. S_{ij} of these factors are in a wide range. This illustrates that the opinion among respondents is different.

For identifying the major policy risks in the PDPM, which with a higher arithmetic mean and lower standard deviation, co-standard deviation of the CID for each risk factor, φ_i is adopted.

The calculation of φ_j is as follows:

$$\varphi_i = \frac{RS_i}{\sigma_i} \quad 6.6$$

where RS_i is the arithmetic mean, and σ_i denotes the standard deviation. By applying the formula 6.6, a group of φ_i can be obtained and shown in Table 6.1. From the definition of φ_i , we can understand that φ_i is bigger when RS_i is higher or σ_i is lower. Therefore, the major policy risk factors should be with high degree of arithmetic mean and low degree of standard deviation.

In this study, five policy risks are identified according to the top five φ_i values at each stage. These policy risk factors are considered as the major policy risks in the PDPM, and they are listed in Table 6.2.

Table 6.2 The Characteristics of Major Policy Factors in the PDPM

	Factor Code	Arithmetic Mean RS_i	Std. Deviation σ_i	Co-std. Deviation φ_i
Stage I: Feasibility Study:				
I-1	A-4	15.38%	13.47%	1.14
I-2	A-1	20.04%	18.10%	1.11
I-3	A-8	20.45%	18.59%	1.10
I-4	A-2	18.48%	17.91%	1.03
I-5	A-3	22.99%	24.58%	0.94
Stage II: Construction Preparation:				
II-1	B-16	18.79%	14.94%	1.26
II-2	B-5	18.41%	14.88%	1.24
II-3	B-4	20.95%	17.60%	1.19
II-4	B-13	16.29%	14.68%	1.11
II-5	B-9	18.64%	17.42%	1.07
Stage III: Construction Process:				
III-1	C-4	19.02%	16.72%	1.14
III-2	C-5	10.68%	13.97%	0.76
III-3	C-6	11.14%	16.10%	0.69
III-4	C-7	9.47%	17.65%	0.54
III-5	C-8	7.73%	15.66%	0.49
Stage IV: Property Disposal and Property Management:				
IV-1	D-11	27.63%	19.16%	1.44
IV-2	D-9	9.32%	12.56%	0.74
IV-3	D-3	12.42%	17.04%	0.73
IV-4	D-6	7.05%	13.63%	0.52
IV-5	D-5	7.42%	18.20%	0.41

From the above table it can be found that the values of index φ_i for some risks are smaller but their arithmetic means are bigger. This is because there is a lack of the unity of the respondents' opinion for these factors. In this study, the major policy risks are identified that they have a bigger comprehensive impact degrees in the PDPM and a higher unity of the respondents' opinion.

6.3 Analysis to the Major Policy Risks

In the above survey, the major policy risks in the PDPM are identified with the index φ_i . Following the identification, this section intends to demonstrate the characteristics of these major policy risks and their changing pattern in the property development process.

6.3.1 Comparing to the characteristics of the major policy risks between the PRC and other developed countries or regions

As above-mentioned, property development is a new industry in the PRC, established only about twenty years. It is still in progress to establish and improve the policy system for regulating the industry. Those important policy risks in the property development process in the PRC may be insignificant in the developed countries or regions. For example, the factor “change of the Government policy for the bank loan interests to the development” is a typical major risk in China, but it rarely happens in the developed countries or regions.

Many risks brought by policy changes in the PRC are uncontrollable risks, whilst they are controllable risks in developed countries or regions, such as “the change of the Government policy related to the urban plan”. Since the Chinese Government authorities used to supervise the market with using administrative methods, the urban plan is often changed, which is one of the major policy risks in the property development in China.

It is believed that the effects of these major risks will decrease along with the development of the legal system in the PRC and from learning with the developed countries or regions.

6.3.2 The impact degree of major policy risk factors in each stage of the PDPM

The survey results have presented the five major policy risk factors in each stage of the property development process as shown in Table 6.2. In the survey of this study, cost increase in property development due to the change of the Government policy is ranked as the top important risk, and this is echoed by the in-depth interview.

The acquisition of the land use right is the foundation in the property development. In first stage, “change of the Government policy related to land supply” is identified as a major policy risk in the property development in the practice. For example, a residential project in the urban area of Tianjin comprises a site with an area of about 270,000 sq m. The development company acquired the land in 1994 at a unit price of RMB 1,500 per sq m, excluding the demolition cost. However, in the following years, the local Government changed the policy by increasing the land supply at suburb area with lower price for property

development. This policy change caused the substantial drop in property price and brought the loss to the developer.

The other major policy risk is identified as “change in Government environmental policies”, which is the top major policy risk in the second stage of the PDPM. In this case, the environmental protection is considered as an important objective in the property development, but the change of the relevant policy can bring a loss for a property developer. For example, a joint venture company acquired the land use right for developing low-rise residential zone in Shenzhen in 1993, located near a reservoir. Since the request of the environmental protection, the development project was finally abolished and the Government suggested offering the developer the land in another site. Although the developer negotiated successfully with the Government in the following years for the change of the place, the developer has missed the good time opportunity for the project development and a large amount of the capital was hold for the land cost, caused extra finance interests.

Construction work will be subject to various technical requirements and the “change of the Government regulation on the standard of evaluation for construction quality of the project” is also identified as a major policy risk in the third stage and an example can be used to demonstrate this. Shanghai Government authority changed the regulation related to the evaluation for construction quality of the project in 2002. By this new regulation, the Governmental responsibility was transferred to developers for construction quality evaluation of the project completion acceptance and the adequacy of property quantities. The developers will face the risk of compensating for the insufficient quantities as specified. In

this case, it is difficult to calculate the loss of the developer, but it is a typical policy risk to the property development in the PRC.

In the property development process, the stage of the property disposal and management will bring income to the investor. “Change of the Government policy related to taxations” was considered as a typical policy risk in this stage. For the development of a construction project in China, there are many tax/fee items imposed. Most of these taxes/fees are often changed/adjusted by the Local Government. Such as a residential project in a coastal city in Guangdong Province in 2000, the revenue department requested the developer to pay the sales tax with 33%. The developer argued that the project was an Anju Project (under Affordable Housing Scheme), which should pay a lower tax rate, about 24%. The Government authorities insisted that the developer should pay the new tax rate as the Government policy has changed. As results, it was reported that the income of the project dropped by over 9%.

6.3.3 The changing pattern of the major risk factors across various stages in the PDPM

Table 6.1 and Table 6.2 show that the impact degree of the major policy risks varies in different project stage. While it is not practical to discuss the full implication of all major policy risks identified, this section intends to demonstrate the pattern of two typical policy risks namely, “change of the Government policy relating to land supply” (known as “the land policy risk”) and “change of the Government environmental policies” (known as “the environmental policy risk”).

6.3.3.1 The land policy risk

In the above survey, the impact degree of the land policy risk was shown in Table 6.1 and Table 6.2. It was identified as a major policy risk I-4 and IV-1 in Stage I and IV, a policy risk factor as II-3 in Stage II. However, it was not considered as a policy risk in Stage III. The distribution pattern of this risk's CID across various stages is shown with arithmetic mean in Figure 6.3.1.

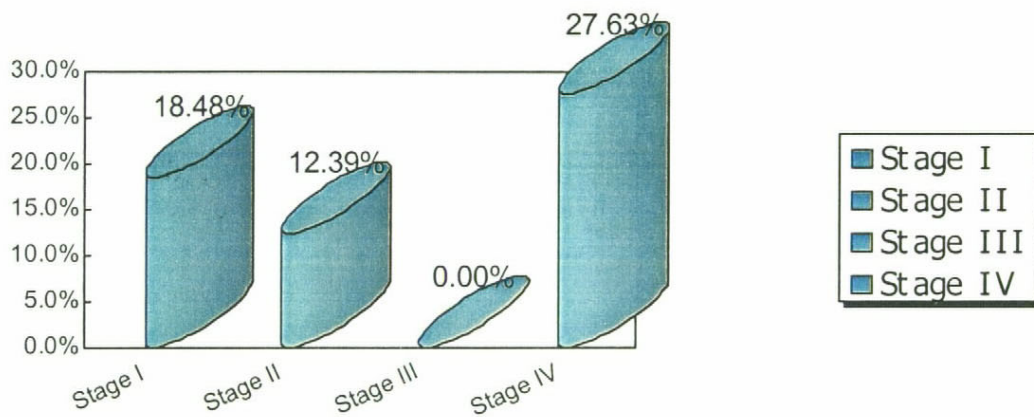


Figure 6.3.1 The CID of the Land Supply Policy Risk in PDPM

Figure 6.3.1 illustrates that land supply has various impacts to project development in different stages. In Stage I, the land supply policy has direct influence to decision making to a potential project. In Stage II, land supply policy can influence the price of the land acquisition. And in Stage IV, the property market and sales price can be affected by the potential land supply. Furthermore, the land supply policy is a common method adopted by the Government authorities for controlling property market. Therefore, the change of the

Government policy related to the land supply will have important impact in these stages. However, this risk is believed having little impact to the construction cost in Stage III.

6.3.3.2 The environmental policy risk

The impact degrees of this policy risk across the property development process can be found in Table 6.1 and Table 6.2. This policy risk factor was identified as major policy risk factor in Stage II and III, ranking first and fourth respectively in the two stages. The distribution of its impacts can be shown in Figure 6.3.2.

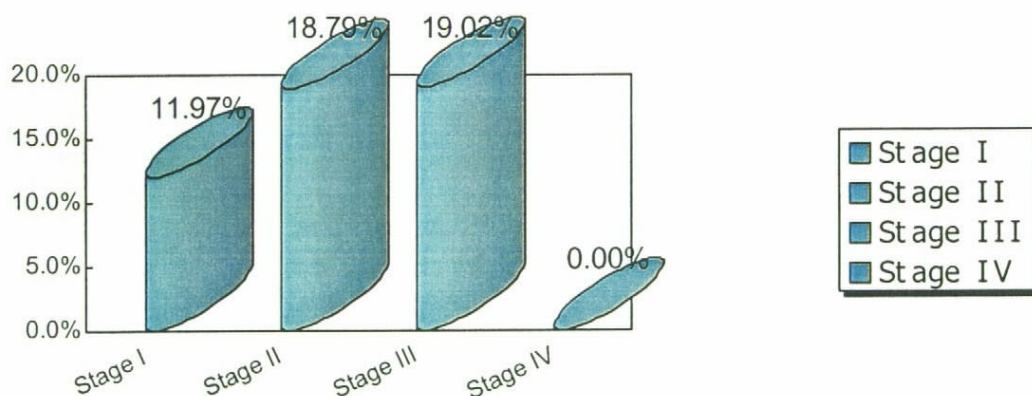


Figure 6.3.2 The CID of the Environment Policy Risk in PDPM

Environmental protection becomes more important ant, and all Governments have started to give a great attention to this issue. In table 6.2, this factor is ranked as the first major policy risk in Stage II and III. In Figure 6.3.2, the risk has significant influence in the first three stages, and little impact to the Stage IV. This finding indicates that it is in the progress of implementing the environmental policy.

The above analysis shows that each policy risk displays differently in different stages in the property development process. One risk may be an important policy risk for one stage, but less significant risk to the other stage. The understanding of this can help management to focus on different risks in different stages.

6.3.4 Significance of major policy risks

The major policy risks were identified in Table 6.1, the CID of these major policy risks in each stage of the PDPM can be presented in the bar chart against other insignificant risks, as shown in Figure 6.4.1 to Figure 6.4.4.

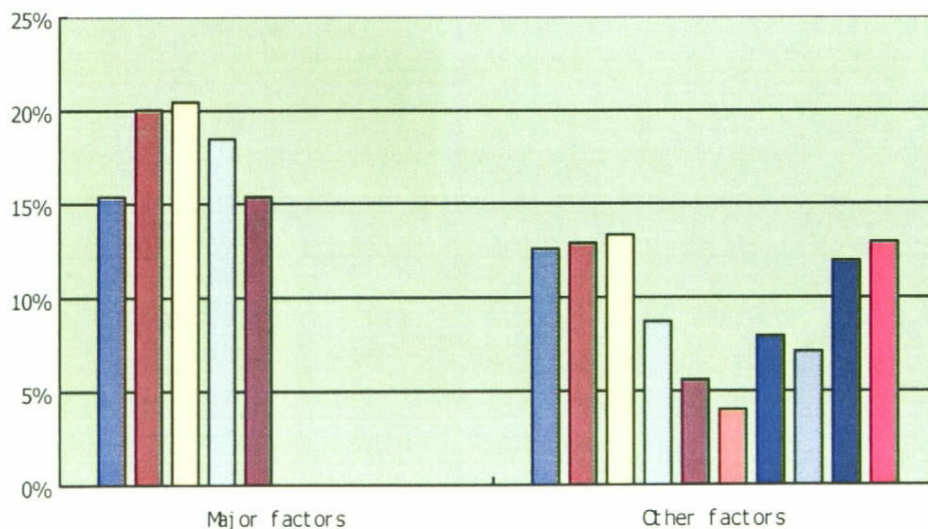


Figure 6.4.1 The CID of Policy Risk Factors in Stage I

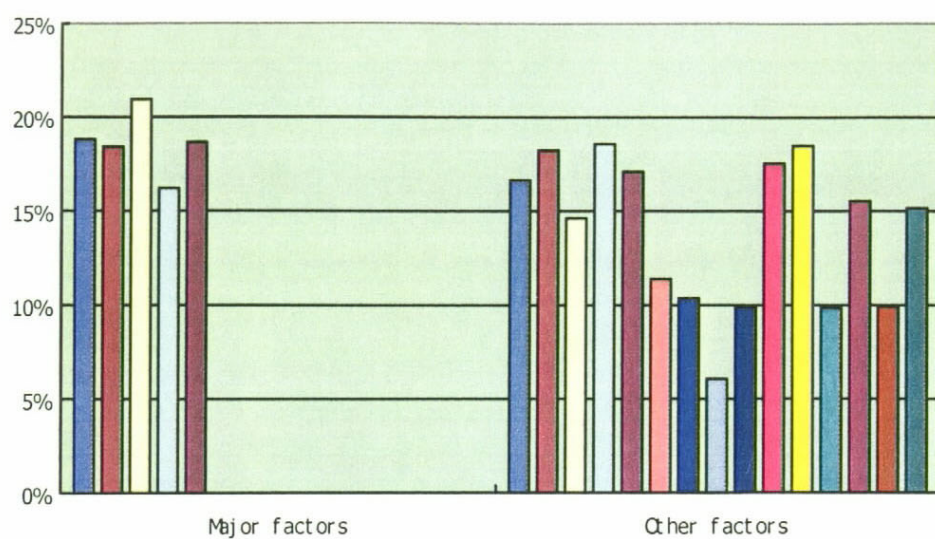


Figure 6.4.2 The CID of Policy Risk Factors in Stage II

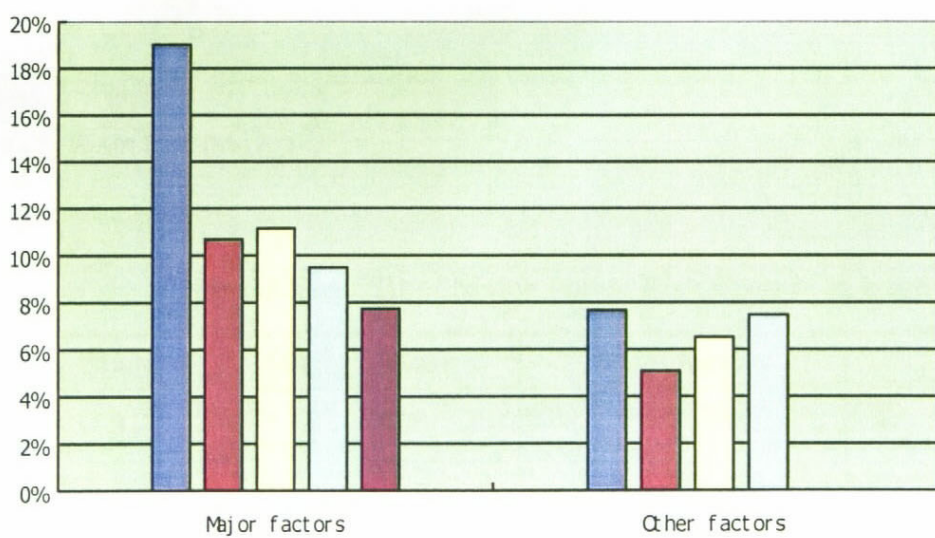


Figure 6.4.3 The CID of Policy Risk Factors in Stage III

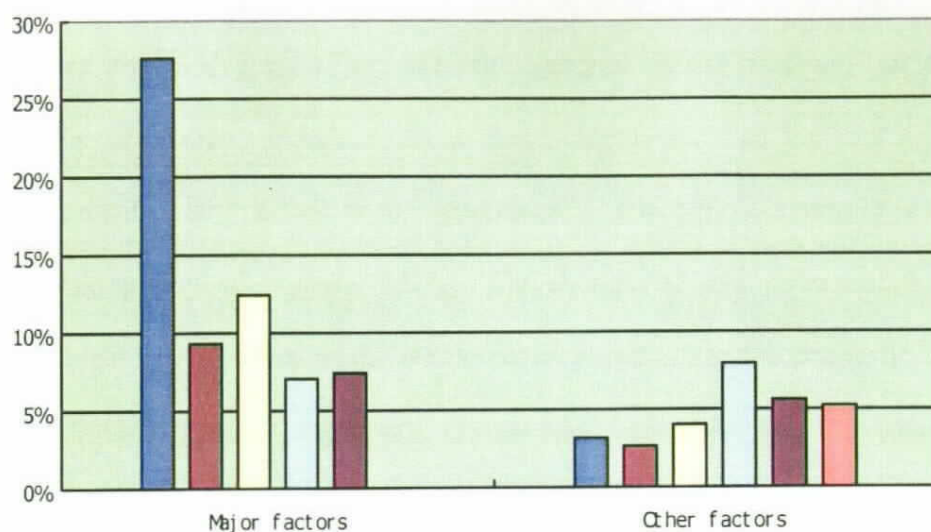


Figure 6.4.4 The CID of Policy Risk Factors in Stage IV

Figure 6.4.1 to Figure 6.4.4 demonstrates these major policy risks do have much greater influence. The total significance of these major policy risks to different stages was summarized in Table 6.3.

Table 6.3 The CID of Major Policy Risk Factors in Each Stage

Stage	Major factors		Total factors		Percentage	
	CID	No	CID	No.	CID	No.
I	0.855	5	1.892	15	45.2%	33.3%
II	0.931	5	2.975	20	31.3%	20.0%
III	0.580	5	0.847	9	68.5%	55.6%
IV	0.638	5	0.925	11	69.0%	45.5%

From Table 6.3, it can be seen that major policy risks assume few numbers but carry on more influence to the property development in China.

An attention should also be given to those risks, which have lower occurrence frequency but a higher impact degree. They are often ignored in the practice, but they can impact the outcome of property development to large extent, such as the risk factor “change of the Government policy related to the economics”. The typical example was the macro-control economic policy adopted in 1993. The change of this economical policy affected the economical development in the whole country, including the property development. In the early 1990s in China, the property market was just established and there were many illegal actions in the property development industry. Thus the Government needed to take necessary measures, namely, adjusting finance policy. However, the change in project finance policy led to many failures of property developments. Till now on, there are many uncompleted buildings in some cities, and this changes brought a huge loss to many property developers in China.

Chapter VII:

Case Study

CHAPTER VII - CASE STUDY

To further support the analysis conducted before in this study, two case studies are investigated in this chapter. The case studies are used to further demonstrate characteristics of the major policy risks in the PDPM.

The background of the two cases will be given with a brief description of the project concerned. For the reason of confidentiality, the identities of the company name involved in the case studies will not be revealed. The information of the cases is obtained through visiting the project managers involved in the projects and the site visits have also been conducted in persons.

Both case studies are property development projects but in different locations in the PRC, being implemented during 1993 and 2001. The two projects turned out with different performance due to the impacts of different policy risks brought by the changes of relevant Government policy in the property development and due to the adoption of different risk management methods by different developers. It needs to note that these case studies are chosen not only to demonstrate the characteristics of major policy risk factors in the property development in the PRC but also to illustrate the necessity of adopting proper techniques in managing the major policy risk, thus avoiding or reducing the loss in the practice.

7.1 Case Study One

Background

In early 1990s, the property market grew rapidly when it was just established in the PRC. Since the welfare housing system was adopted about 40 years, there has been a big demand for houses throughout the country. At that time, the reforms of the land use rights system and housing system were adopted in the country, which brought the opportunities to the property development industry. Many local or overseas property development companies were established and went into the Chinese property market. They acquired the land use rights to developing property, aiming for gaining high profit from the new industry in this country.

In order to attract the foreign investment, many local Governments changed their urban plan, established development zone and granted the land use rights to the investors for property development. The number of developers grew rapidly in this market and the price of land use rights increased dramatically in a short interval due to speculation in the land market. Lack of an established legal system in the property development industry is one of the major problems.

In 1994, the Central Government implemented the Macro-control Economic Policy to restrict the bank loan to development projects. As a result, many development companies did not have enough capital for completing the property development projects and made serious losses. There are many cases in the country that projects could not be finished because of the shortage of finance, which is due to the change of the financial policy.

Description of the Case

A joint venture company, comprising of a Hong Kong listing company and a Mainland China party, acquired the land use rights of a site in the urban area of a medium sized city in a coastal province in 1992. Pursuant to the Contract for Grant of State-owned Land Use Rights, which was made between the Local Government and the Joint Venture Company in July 1993, the condition for the land use rights of the site for developing property in is illustrated in Table 7.1.

Table 7.1 Condition of the Site for Developing Property

Site area:	6,485.52 sq m
Usage:	Composite uses
Land use term:	50 years commencing from 7 August 1993
Land grant fee:	RMB 28,000,000.
Completed date:	In or before August 1996
Condition for land transfer:	Investment over 25% of total construction cost
Permittable GFA:	Refer to the permission issue by Planning Department

In the feasibility study of this project, the subject project was expected to develop a reinforced concrete comprehensive building with a 34-storey office building upon a 7-storey commercial podium including 2 levels basement. It has a total gross floor area of 59,800 sq m. At that time, the sales price of office is expected to be RMB 6,500 per sq m and commercial area is about RMB 9,000 per sq m in this area. Pursuant to the project design,

the total construction budget of this project is about RMB 267 million and it was expected to be complete at mid 1996.

In early 1994, the Construction Land Use Planning Permit and the Construction Project Planning Permit was issued by the Local Planning Department respectively. The Permits had an approved construction land use area of 6,485.52 sq m and the approved gross floor area of 59,800 sq m. At mid 1994, a bank loan was granted to the developer with a total amount of RMB 45.3 million for the land premium and the construction cost with the land use right of the site as the security. The interest rate of the loan was 11% per annual. The construction project commenced from June 1994.

In mid 1995, the main structure of the commercial podium including the car park basement was completed and another bank loan was needed for the upper construction work. However, at this time the Central Government introduced the Macro-control Economic Policy, the finance policy was changed from supporting to restricting the property development, and accordingly the finance to this industry was tightened up.

At that time, it was very difficult to borrow money to finish the property development construction. The parent company of the developer even tried to negotiate with the Local Government for the project finance, but it failed. Although an injection of additional new money was committed by the parent company, and the commercial podium and car park basement completed, the project was still abandoned at the end 1995. By this time, a total

amount of RMB 112 million had been invested into this project, including the bank loan RMB45.3, but the construction process had to stop due to the shortage of finance, which is induced by the change of the Government financial policy.

The project was totally abandoned since then, and the developer had to pay bank loan interests. Up to the end of 2000, the Joint Venture Company owned various finance sources with a total debt of RMB 72.7 million. Attempt was made for rescuing this project, and the joint venture company. The parent company negotiated with the relevant Government authorities and changed the project design to match the demand in the market. However, construction of the project could not continue.

In early 2001, the joint venture was forced to be liquidated, and the uncompleted development with the remaining land use rights term valued as RMB 72.5 million was for repaying the debt.

Summary

This practical case represents a typical project for property development investment, which suffered from the policy risk. At the beginning, the joint venture company carried out the feasibility study for the development project and a profit was expected and the development project had been in the good progress with a stable economic condition. However, the macro-control economic policy was adopted, followed by changing the Government financial policy. This policy change brought the loss to the developers at a total amount of RMB 39

million, about 13.3 % of the total planned investment amount and 35.2% of the total committed amount in this project.

In the previous analysis, the change of the Government economic policy was identified as a major policy risk factor I-1 in Stage I, II-4 in Stage II and IV-3 in Stage IV and considered as a policy risk in Stage III. This case shows the significant that this major policy risk, which occurring in more than one stage can affect the property development to large extent.

7.2 Case Study Two

Background

In developing property, urban planning is a very important element to be concerned by the developer. City plan can affect to large extent the land cost and the market price of the property. It is essential for a property investor to understand the urban planning before making any decision.

In early 1990s, the Local Government of a major coastal city suggested to construct a new town in urban district, with a total site area of about 6 sq km, as the Central Business District (the CBD) in the future. In 1993, a plan for the CBD was completed and the CBD would comprise business area, residential area and related ancillary facilities, such as shopping mall, schools, a hospital and museums. This plan was considered to present very good commercial opportunities. Many developers believed that the Local Government would invest in this

district in order to push the development of the CBD. And many of them acquired the land use rights in the planned CBD area for developing property.

However, in 1997 the Government changed the urban development plan and decided to focus on developing a different district of the city. This policy change has caused the land price dropped from about RMB 3,200 per sq m to RMB 2,300 per sq m in past ten years. And during the same period, the price of the residential properties in that area dropped over 20 per cent (Figure 7.1).

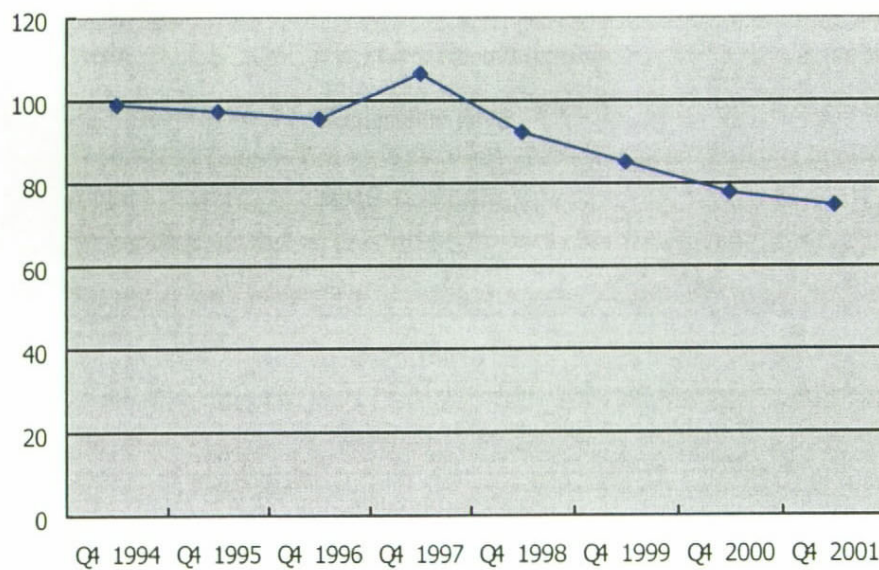


Figure 7.1 Decreasing Trend of Selling Price Index in Case Study Two

- DTZ Index in Chinese Mainland

Description of the Case

In the potential CBD area, a joint venture property developer obtained the land use rights for a site with a total area of 189,925.30 sq m at a cost of RMB 1,563 million in 1996 for a multiple usages. Pursuant to the Contract for Grant of the State-owned Land Use Right, the joint venture company was granted the land use rights of this site. The major conditions specified in this land grant contract are included in Table 7.2.

Table 7.2 Condition of the site for Developing Property

Site area:	189,925.30 sq m
Usage:	Composite uses
Land use term:	70 years for residential; 40 years for commercial, tourism and entertainment; 50 years for other uses commencing from 10 September 1996
Land grant fee:	RMB 1,563,435,000
Plot ratio:	≤ 3.29
Green area:	$\geq 49,560$ sq m
Maximum height:	30 stories
Total GFA:	$\leq 625,374.07$ sq m

According to the feasibility study report for this project, this site would be developed into a commercial/residential development comprising 21 high-rise residential buildings and a shopping mall with a total gross floor area of 625,374 sq m. In end 1997, the Construction Land Use Planning Permit and Construction Work Planning Permit were issued by the relevant Government authorities.

Pursuant to the market information obtained, the project design was originally planned to be completed in early 2000 and the total budget for the whole development project was about RMB 5 billion including the land cost and bank loan interests. In other words, the average development cost was about RMB 8,000 per sq m in gross floor area. According to the time schedule of the project, Phase I should commence at the mid of 1998 and the whole project was expected to be completed in two and half years by two phases. In the feasibility study report, the expected sales price of residential property was RMB 9,000 per sq m, giving a return rate of about 12% to this project.

However, since the Local Government changed the urban development plan focus, and repositioned the focus on a new area in the city, the ancillary facilities in CBD area were not properly developed. Having realized this change, the developer had to postpone the commencement of Phase I to the end 1999.

Finally, Phase I of the property development project was completed in the mid 2001. But the property price dropped substantially before this completion date. As we can see from Figure 7.1 that the index of residential property dropped over 15% in this city during the period between the end of 1998 and 2001, the sales price of the residential property in the proposed CBD has dropped to RMB 8,000 per sq m. In addition, since the postponement of the development schedule, the bank loan interest amount increased about RMB 423 million, the construction cost including land cost and interests increased to about RMB9,070 per sq m.

Summary

In this case, the Local Government authorities changed the policy of developing urban area and postponed the development schedule of the ancillary facilities in the CBD. It put off the commencing date of this project over one and half years and decreased the developer's expectation on the potential of the CBD. The land price and property sales price in CBD area dropped about 15% and 10% respectively comparing to that four years ago. At the same term, the market price of the property had a slight dropping in the other district of this city.

As the above mentioned, the policy risk brought by the change of the urban policy in this area as a major policy risk factor II-5 in Stage II and considered as a policy risk factor in Stage I. In this case, since the change of the urban planning policy, the price of the property in this area dropped and the developer has to face the dropping of the return due to the issue of this policy and the loss was estimated as about 20% down comparing to the original return.

7.3 Summary of Case Studies

The case studies discussed in this chapter demonstrate typical examples where policy risks have affected the efficiency of property development in China. In fact, there are many changes in policies regulating property development introduced by the central or local Government, and these changes often bring risks to the property development businesses. The above cases illustrate that the major policy risks can affect the property development and reduce the profit expected to considerable extent. These cases demonstrate that developers can do little in order to reduce or avoid these risks. However, the proper consultation to

relevant Government departments during the whole property development process is considered important.

The structure of the property rights in China has gone through a fundamental change and is developing toward the developed countries' model, especially in the area of establishment and improvement of the legal and policy system. Through the in-depth examination on the PDPM established for this research, this study identified the major policy risks in the property development process in China. Their occurring possibilities and impact degrees have been modeled. The significant impacts of those risks are further demonstrated through the case studies. The findings are particularly useful to relevant Government departments for improving their standards of implementing various policies, thus economic sectors can have less impacts if changes have to be made to the existing policies.

Chapter VIII:

Conclusion

CHAPTER VIII - CONCLUSION

The structure of the PRC property rights has been through a fundamental change, developing towards the developed countries' model, especially in the fields of establishment and improvement of the legal and policy system. Through the in-depth examination on the PDPM, this study identified the major policy risks in the property development process in the PRC. Their occurring possibility and impact degrees have been modeled. The significant impacts of those risks are further demonstrated through the case studies.

8.1 General Conclusions

This study compares the property development process between the PRC and the developed countries or regions. It has been found that the PRC is far behind in implementing properly legal and policy system. Chinese policy system presents many uncertainties and risks to businesses. The establishment of the property development model in the PRC (the PDPM) suggests that policy risks have different impacts to business at different stages. According to analysis, the major policy risks in the PDPM have significant influences to the operation of developing property in all stages.

The identification of the major policy risks was conducted through the assistance of practical survey. And their characteristics across different stages have also been presented. Pursuant to the survey and analysis in the previous chapters of this study, the following conclusions can be made.

The occurrence possibility of the policy risks in the PDPM

The market economy was been adopted about two decades in the PRC, and the legal system for controlling and regulating the practice is still in establishment and improvement. The Chinese Government used to standardize the business activities by administrative methods rather than through market mechanism. In the process of transferring the economic system, many new policies have been adopted, and the same revisions have been made to the existing policies. Whilst these revisions and changes are necessary in the process of transferring the economic system, these changes often bring risks to the business in the market.

Property development is a new industry in China and the relevant policy system is being established. It is expected that various changes and revisions will happen to the existing policy system. These changes or revisions are necessary in order to regulate and supervise the development to the market. Typical examples of changing policy in property development industry include the land supply policy, the standard purchase and sales contract of the commodity house, the environmental protection, etc. All these changes can induce various impacts thus the increase of the costs to the investors. Changes in policies do present risks to the property development in the PRC. Some of them have high occurrence possibility in bring the losses to the property investment.

The comprehensive impact of major policy risks in the PDPM

According to the PDPM established in this study, it can be found that there are many policy risks in each stage and the impact degrees of them to the effectiveness of property

development are various across different degrees. The findings about the comprehensive impact degrees of policy risks are obtained through using statistical methods.

Through the analysis, it can be seen that major policy risks have different impacts in each stage. However, the identification of the major policy risks present that the comprehensive impact degree of each major risk does not depend upon whether it occurs in one or more stages in the property development process. For example, the change of the policy to the construction project supervision is a major policy risk, which only affects the third stage of the PDPM with a high impact degree, but it does not bring impacts on the other stages. So the major policy risks are identified against different stages in order to investigate their characteristics.

The analysis in this study presents the major characteristics of these major policy risks in the PDPM. While the impacts from these major policy risks vary between different stages, the degree of their impacts are significant. This indicates that proper control on these major policy risk items across all stages in the PDPM will be more effective in reducing risk consequence.

It also indicates that more efforts should be given to study the methods of managing these major policy risks.

The management of the major policy risks in the PDPM

The changes of the policies will usually result in increasing uncertainties and risks in the property development. From the case studies included in Chapter 7, it can be found that major policy risk factors can cause significant consequence in the property development in the PRC. In order to avoid or reduce the losses, it is important to understand the characteristics of the major policy risk factors and carry out the policy risk management in the property development in the PRC.

8.2 Suggestion for further Studies

Since the property development industry in China is a relative new industry, existing information and data are limited for comprehensive analysis. Limitation exists in conducting the comparison of China with other developed countries or regions.

It is suggested to establish a proper policy risk system in the future for assisting in identifying risks. The characteristics of the major policy risk factors in China need to be further studied with collecting more samples from practice. It is also considered most important for the Chinese Government to establish a more stable policy system for supervising the property development, which can increase the trust of the investor in this industry.

Appendix



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Appendix I: Questionnaire for Surveying Policy Risks across all Stages in the PDPM

Stage I: Feasibility Study (including potential site identifying, financial analysis and decision-making)

Risk Factor		Occurrence Frequency and Impact														
		Occurrence Possibility						Impact Degree								
		0-20%	20-40%	40-60%	60-80%	80-100 %	Less than – 100%	-75- -100%	-50- – 75%	-25- -50%	-25-0%	0-25%	25-50 %	50-75 %	75-100 %	More than 100%
A-1	Change of the Central or Local Government policy related to economic factors, such as Micro-control, etc															
A-2	Change of the Central or Local Government policy related to land supply, such as restriction or relaxation															
A-3	Change of the Central or Local Government policy related to housing policy, such as support or non-support															
A-4	Change of the Central or Local Government policy related to finance, such as interest rate															
A-5	Change of the Central or Local Government policy related to finance, such as change of repayment period															
A-6	Change of the Central or Local Government policy related to finance, such as change of the portion of house loan															
A-7	Change of the Local Government policies related to the project support, such as guarantee return															

Stage II: Construction Preparation (including the acquisition of land use rights, project design, planning approval)

Risk Factor		Occurrence Frequency and Impact														
		Occurrence Possibility						Impact Degree								
		0-20%	20-40%	40-60%	60-80%	80-100 %	Less than 100%	-75-100%	-50-75%	-25-50%	-25-0%	0-25%	25-50 %	50-75 %	75-100 %	More than 100%
B-1	Change of the Central or Local Government policies related to land supply, such as restriction or relaxation															
B-2	Change of the Central or Local Government policies related to housing system, such as the restriction on the type and the size of property development															
B-3	Change of the Local Government policies related to land use policy, such as with premium or without premium															
B-4	Change of the Local Government policies related to the transfer of land use rights policy, such as auction, tender and by agreement															
B-5	Change of the Local Government policies related to the price of transfer the land use rights, such as waive the transfer fees															
B-6	Change of the Government policies related to land use, such as planning policy															
B-7	Change of the Government policies related the revise of mid- or long-term plan															
B-8	Change of the Government policies related to land department policy, such as the period of land department, the condition for transfer of land use rights															

Stage III: Construction Process (including tendering of the project contractor, construction, acceptance of the completed construction quality and document filing)

Construction Quality and Cost Control		Occurrence Frequency and Impact														
Risk Factor		Occurrence Possibility						Impact Degree								
		0-20%	20-40%	40-60%	60-80%	80-100%	Less than 100%	-75-100%	-50-75%	-25-50%	-25-0%	0-25%	25-50%	50-75%	75-100%	More than 100%
C-1	Change of the construction tendering policy															
C-2	Change of the Central or Local Government policies in related to financing policy and influence to the cost of the construction															
C-3	The Government support on project financing, such as bank loan															
C-4	Change of Government environmental policies															
C-5	Regulation on speculating construction procedure															
C-6	Regulation on the standard of the acceptance of the completed construction quality															
C-7	Change of the Local regulation on real estate taxation															
C-8	Change of the regulations on construction in related to project development															
C-9	Change of the conditions on construction contracts															

Stage IV: Property Disposal and Management (including property disposal and property management)

Risk Factor		Occurrence Frequency and Impact														
		Occurrence Possibility						Impact Degree								
		0-20%	20-40%	40-60%	60-80%	80-100 %	Less than 100%	-75-100%	-50-75%	-25-50%	-25-0%	0-25%	25-50 %	50-75 %	75-100 %	More than 100%
D-1	Change of the building ownerships policies, such as confirmation of the ownership and execution															
D-2	Change of the Government policies related in the building ownership, such as condition or regulations on transfer of the ownership															
D-3	Change of the Central or Local Government policies in related to financing policy, such as guarantee, housing fund and policies															
D-4	Change of the Local Government policies in related to special project, such as the guarantee return															
D-5	Change of the Government financing policies in related to property development, such as mortgage term, ratio and interests															
D-6	Change of the Government policies in related to property disposal, such as the definition of selling area															
D-7	Change of the pre-sale policies, such as the terms and conditions for pre-sale															
D-8	Change of the local or overseas sell policies in the property development															

Appendix II: Summary of Data Collected for Survey

Stage I: Feasibility Study (including potential site identifying, financial analysis and decision-making)

	Risk Factor	Occurrence Frequency and Impact													
		Occurrence Possibility						Impact Degree							
		0-20%	20-40%	40-60%	60-80%	80-100%	Less than 100%	-75-100%	-50-75%	-25-50%	-25-0%	0-25%	25-50%	50-75%	75-100%
A-1	Change of the Central or Local Government policy related to economic factors, such as Micro-control, etc	4	14	6	4	5	0	0	0	2	1	8	6	13	2
A-2	Change of the Central or Local Government policy related to land supply, such as restriction or relaxation	2	7	10	13	1	0	0	0	1	4	5	7	14	2
A-3	Change of the Central or Local Government policy related to housing policy, such as support or non-support	1	6	5	14	7	0	0	0	1	4	12	6	4	5
A-4	Change of the Central or Local Government policy related to finance, such as interest rate	0	10	15	6	2	0	0	0	2	2	8	14	7	0
A-5	Change of the Central or Local Government policy related to finance, such as change of repayment period	3	11	13	4	2	0	0	0	0	8	8	12	2	3
A-6	Change of the Central or Local Government policy related to finance, such as change of the portion of house loan	1	18	10	2	2	0	0	0	0	4	9	14	5	1
A-7	Change of the Local Government policies related to the project support, such as guarantee return	8	16	3	5	1	0	0	1	0	2	8	6	12	5

A-8	The influence of the property development project related to the Local Government policies, such as the favour terms offered to the Anju Project	1	8	11	8	5	0	0	0	0	0	2	9	13	7	2	0
A-9	Change of the Local Government revenue policies related to the property development	3	18	8	2	2	0	0	0	1	3	13	12	3	1	0	0
A-10	Change of the Local Government policies related to the property development	14	12	4	1	2	0	0	1	4	19	5	3	3	0	0	0
A-11	Change of the Government policies related to qualifications of the property developers, such as wholly-owned, joint venture	19	8	3	2	1	0	0	0	2	17	7	3	3	0	0	0
A-12	Change of the Government policies related to the restriction of the capital investment of the property developers	12	16	3	0	2	0	0	0	1	4	9	15	3	1	0	0
A-13	Change of the Government policies related to fund raising, such as Local market or overseas market	15	11	5	1	1	0	0	1	5	8	12	4	2	0	0	0
A-14	Change of the Government policies related to the environmental protection	1	10	15	3	4	0	0	5	0	2	9	3	11	3	0	0
A-15	Change of the planning policies and building policies	2	18	7	4	2	0	0	1	3	7	13	7	1	0	0	0

Stage II: Construction Preparation (including the acquisition of land use rights, project design, planning approval)

Risk Factor		Occurrence Frequency and Impact														
		Occurrence Possibility						Impact Degree								
		0-20%	20-40%	40-60%	60-80%	80-100 %	Less than 100%	-75-100%	-50-75%	-25-50%	0-25%	25-50 %	50-75 %	75-100 %	More than 100%	
B-1	Change of the Central or Local Government policies related to land supply, such as restriction or relaxation	2	8	18	3	2	1	0	0	4	0	5	16	5	2	0
B-2	Change of the Central or Local Government policies related to housing system, such as the restriction on the type and the size of property development	3	10	14	4	2	0	0	2	0	2	6	14	0	3	
B-3	Change of the Local Government policies related to land use policy, such as with premium or without premium	13	7	6	4	3	1	0	0	1	2	5	12	4	7	1
B-4	Change of the Local Government policies related to the transfer of land use rights policy, such as auction, tender and by agreement	3	7	13	6	4	0	0	0	0	2	6	15	8	1	1
B-5	Change of the Local Government policies related to the price of transfer the land use rights, such as waive the transfer fees	4	16	5	6	2	0	0	0	0	2	6	7	16	2	0
B-6	Change of the Government policies related to land use, such as planning policy	3	11	14	2	3	0	1	0	1	5	5	8	5	6	2
B-7	Change of the Government policies related the revise of mid- or long-term plan	4	19	2	6	2	0	0	0	1	1	4	15	8	3	1
B-8	Change of the Government policies related to land department policy, such as the period of land department, the condition for transfer of land use rights	5	15	10	2	1	0	1	0	0	3	8	13	7	0	1

B-9	Change of Government policies related to planning policy, such as plot ratio, site coverage and green ratio	1	5	19	6	2	0	0	0	0	2	0	6	6	11	8	2	0
B-10	Caused by the need for the construction of urban facilities, the Government needs to acquire the land use rights from the development	10	16	5	1	1	0	0	0	0	0	0	3	6	6	6	8	2
B-11	Change of the Local Government policies related to special condition in the projects, such as favour terms and conditions specially offered to the developers for some selected projects	9	17	5	0	2	0	0	0	0	0	3	3	8	12	7	0	0
B-12	Change of the Central or Local Government policies related to influence to the market by the change of financial policy	11	9	5	5	3	0	0	0	0	0	0	3	15	9	4	1	1
B-13	Change of the Central or Local Government related to the project finance	7	12	3	9	2	0	0	0	0	0	0	3	5	19	4	2	0
B-14	Change of the Government policies related to planning policy, such as plot ratio, building density, height restriction	3	18	5	5	2	0	1	0	0	0	1	0	8	6	11	5	1
B-15	The Government requirement in related to the property developers in property development, such as access road, hospital, school	1	17	3	7	5	0	0	0	0	0	1	3	7	14	5	3	0
B-16	Change in Government environmental policies	2	9	6	12	4	0	0	0	0	0	0	3	9	14	5	2	0
B-17	Change of the building requirement – approval procedure and conditions	5	16	8	2	2	0	0	0	0	0	0	5	14	9	4	1	0
B-18	Change of the Government policies in related to house demolitions policy or reform policy	2	14	8	5	4	0	0	0	0	0	0	6	5	10	11	1	0
B-19	Change of the Government policies in related to land compensation	3	17	10	2	1	0	0	0	0	0	1	2	15	8	6	1	0
B-20	Change of the Government policies in related to taxation, such as land appreciation tax	5	10	13	3	2	0	0	0	0	0	0	2	8	15	6	2	0

Stage III: Construction Process (including tendering of the project contractor, construction, the acceptance of the completed construction quality and document filing)

Risk Factor		Occurrence Frequency and Impact														
		Occurrence Possibility						Impact Degree								
		0-20%	20-40%	40-60%	60-80%	80-100 %	Less than — 100%	-75- -100%	-50- — 75%	-25- -50%	-25-0%	0-25%	25-50 %	50-75 %	75-100 %	More than 100%
C-1	Change of the construction tendering policy	6	6	17	1	3	0	0	1	1	7	15	4	4	1	0
C-2	Change of the Central or Local Government policies in related to financing policy and influence to the cost of the construction	2	19	8	1	3	0	1	1	2	5	4	17	2	1	0
C-3	The Government support on project financing, such as bank loan	9	15	4	3	2	0	0	1	1	5	6	16	4	0	0
C-4	Change of Government environmental policies	1	5	15	8	4	0	0	0	1	3	4	18	5	2	0
C-5	Regulation on speculating construction procedure	2	15	10	4	2	0	0	0	0	2	18	8	5	0	0
C-6	Regulation on the standard of the acceptance of the completed construction quality	2	17	9	2	3	0	0	0	0	3	17	8	5	0	0
C-7	Change of the Local regulation on real estate taxation	3	18	7	1	4	0	0	0	2	7	7	11	5	1	0
C-8	Change of the regulations on construction in related to project development	11	14	4	3	1	0	0	0	1	2	18	7	4	1	0
C-9	Change of the conditions on construction contracts	4	16	7	1	5	0	0	0	1	8	17	3	2	1	1

Stage IV: Property Disposal and Management (including property disposal and property management)

Risk Factor		Occurrence Possibility										Occurrence Frequency and Impact					
		Occurrence Possibility						Impact Degree									
		0-20%	20-40%	40-60%	60-80%	80-100%	Less than 100%	-75-100%	-50-75%	-25-50%	-25-0%	0-25%	25-50%	50-75%	75-100%	More than 100%	
D-1	Change of the building ownerships policies, such as confirmation of the ownership and execution	5	20	4	2	2	0	1	1	3	2	17	8	1	0	0	
D-2	Change of the Government policies related in the building ownership, such as condition or regulations on transfer of the ownership	13	11	4	4	1	0	0	2	2	5	16	6	2	0	0	
D-3	Change of the Central or Local Government policies in related to financing policy, such as guarantee, housing fund and policies	2	16	6	5	4	0	0	0	1	1	12	13	5	1	0	
D-4	Change of the Local Government policies in related to special project, such as the guarantee return	16	6	7	2	2	0	0	0	2	9	11	5	6	0	0	
D-5	Change of the Government financing policies in related to property development, such as mortgage term, ratio and interests	3	16	7	3	4	0	0	0	2	4	13	8	6	0	0	
D-6	Change of the Government policies in related to property disposal, such as the definition of selling area	9	16	6	0	2	0	0	0	0	4	15	10	4	0	0	
D-7	Change of the pre-sale policies, such as the terms and conditions for pre-sale	2	11	13	4	3	0	1	0	1	4	14	7	5	1	0	
D-8	Change of the local or overseas sell policies in the property development	6	20	4	1	2	0	1	0	0	4	16	7	5	0	0	

D-9	Change of the Local Government policies in related to 'taxations, such as the reduction of property tax	6	15	8	1	3	0	0	0	0	0	3	11	14	5	0	0
D-10	The implementation and change of the policies in related to property management	1	17	7	4	4	0	0	1	2	5	17	3	4	1	0	0
D-11	Change of the Government policy related to land supply	0	1	12	5	1	0	0	0	0	0	0	7	12	0	0	0

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