

# Carding on the western economic theory of Real estate price decision and Application

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**Abstract.** In recent years, the problem of real estate price has become more and more concerned by the society and the government., thus the composition of the real estate prices and the determining factors to become a topic of concern to the academic community.

This article has carried on the back and context of the western theory of economic price, sorts out cost determination theory, utility price theory and equilibrium price theory in varying degrees of real estate price formation process has a different degree of influence and inspiration. After a brief review and the guiding of the theory in the real estate price application, and finally according to the theoretical analysis, the main supply and demand factors of Chinese real estate prices are proposed.

Real estate has become a social focus more than ten years, the uncertain prices is not only a simple routine changes in commodity prices, but also affects the national economy and people's lives. People pays more attention to the price, the state implements a variety of macro-control means to intervene prices, a large number of wealthy gets more and more houses, but the ordinary is not able to undertake house, and in some cities people doesn't spend too much money on the house, but prices dose not fall causes the "ghost town"these problems and phenomenon make the real estate prices unsolved, so we wonder to know that it is what to determine the price of real estate ? This article researches the price by the West the decision retroactive price theory, and strives to find the theoretical basis for the application of real estate prices, finally we can provide a reference for analyzing the determinants of Chinese real estate prices.

## 1.The cost of determinism

The value of supply decision is a typical formulation of the relationship between the value and supply, this is from the relationship to study aspects of value, which representative theory are the cost of production and the labor theory of value.

### 1.1The cost of production

The cost of production is defined by the British classical economist Adam Smith, he mentioned the cost of production in the the labor theory of value. The representative of this faction is Say, he says that "the value contains labor, capital and the forces of nature to complete it". Under normal circumstances, the value and price is directly proportional, the value is determined by merchandise's practical effect finally,in other words, in essence to create merchandise's practical economical effect is creating the wealth . It is the result of labor, capital, land interaction of the value of commodities, reflecting the value of the merchandise is another manifestation of wealth.

### 1.2Marx's the labor theory of value

#### 1.2.1 About the constitution of value.

Marx through scientific research and demonstration to get a final conclusion about the constitution of commercial value, the commercial value is made up with C-Constant capital, V-Variable capital (mainly wages). The value is divided into the macro and the micro perspectives. In the micro enterprises the circulation of commodity are all by three parts; In the macro totally social product can also be divided into three parts. Therefore, the commercial value is made up with C, V, M which is popular general, but also scientifically negatives the "Smith's doctrine."

#### 1.2.2. About matter of form of the value's transform.

Transform or deform of the form of value is price finally. Since the profits among the various

departments become more and more average, the profit is the average profit, while the value is the productive price. The productive cost is  $K = C + V$ , the average profit is  $P = M$ , so the productive price is  $K + P = C + V + M$ . In the Marxist theory, the theory of the structure and theory of production price is the same in essence, and interlinked. This particular conversion process reflected on two relationships of quantity: the total value of production = total price; total surplus value = Gross profit = average profit.

### 1.2.3 About the change of price

Commodity price is basically unchanged as the value is also unchanged, but once the price is different, it will change. Marx made a detailed explanation about this phenomenon: The price of goods depends on changes in the productive value and money, as the monetary value remains unchanged, the productive value reduced in the same, but increase the monetary value of the same period, the price will be reduced, on the contrary, commodity prices, at constant currency values, when increase the productive value or remain it, the value of the currency will reduce at the same time, the commodity prices will increase. In summary, commodity prices' to increase or decrease depends on the changes of the productive value and money.

### 1.3 The application of the cost decision theory in the real estate

The real estate prices is a form of the value of money, is house and land which they are added, the result is the real estate market participants from the perspective of maximizing their own interests to engage in trading activity and the formation. Marx's explanation is about commodity prices and the value, the productive value by the fixed costs, variable costs, and together constitute the surplus value, in the form of price performance, the fixed cost and variable cost components of production costs, conversion of surplus value profits. Therefore, the price of the real estate market can be divided into the appropriate cost and profit. Among them, the cost of real estate development, capital appreciation funds paid all the construction process takes, the profit is obtained by the latter part of management, and sales, which is all of the surplus value.

Commercial housing price structure can be formulated expressed as follows:

Residential land price = (foxglove price) + Rate  
 = + Habitat raw land development costs \* (1 + cost of land development margin) + housing construction costs \* (1 + construction cost plus margin) + cost of housing sales \* (1 + cost of sales profit rate) + taxes

Therefore, in the real estate price analysis, cost analysis has become an essential part.

We can know that the cost of land becomes the second largest developer of costs. Specifically including expropriation costs or relocation costs, land acquisition costs, access, water, electricity and regular venue costs, in terms of cultivated land for other conditions have been met, the cost of land acquisition is the cost of land. The cost of land acquisition is controlled by the local authorities and constraints. The cost is mainly by material costs, labor costs, construction, mechanical royalties, management costs and construction companies, construction companies tax, profits, and other components.

Developers have to bear more types of taxes, including land tax, land occupation tax, corporate income tax. The tax can not be ignored in real estate development costs, it is an important way of the government to carry on the real estate macroeconomic regulation and control and media. Real estate cost of production is lowest real estate prices is an important part of the real estate price analysis.

## 2. Utility determinism.

### 2.1 utility theory of value

In Mid-17th century, the British economist Caligula · Budge on the utility value gave us his view. French economist Say basis Dracula · Budge utility value gave his new ideas, in his masterpiece "Introduction to Political Economics" mentioned the realization of the commodity utility through human constantly changed existing physical form in the production process, the new products had different function on the basis of the original material and expanded use of it. With the analysis it can be seen, the utility and creating material by manpower appeared at the same time, that is to say the human beings created is utility rather than substance. When people had agree with an item, in

fact recognized utility.

## **2.2 Marginal utility theory of value**

Marginal utility theory of value discussed the nature of value and starting point as well as the definition of value in detail. Marginal utility value in the classification of substances classified into two parts, the value of the relationship between subjective and objective value, subjective value is the financial and trade in peoples, and the objective value is the relationship between money and goods other than human welfare.

The price and value of merchandise have an integral connection. Therefore, the marginal utility value of goods and commodities held in money proportional to both the utility under the same circumstances, the marginal utility of goods that is larger, the price is higher, the smaller the marginal utility of goods, the price would be lower.

## **2.3 The application of utility theory**

### **2.3.1 Impact preference for real estate prices**

For lack of product or a desire to constitute a motivation to buy goods, and needed items are sorted, result in the purchase of goods with limited funds a sense of proportion, which is consumer preference. When the sharp rise in consumer demands and aspirations of the extent of the house, becomes urgent and become the main demand, encourage consumers to prefer the formation of purchase; on the contrary, it will turn into the house to give up other preferences later.

### **2.3.2 Identify the Real Estate Investment Decision**

Real estate investment is a complex investment project selection, project itself influenced by macroeconomic and social as well as regional, which also includes a technical estimates and calculations. When a real estate project risk decisions can be based on expected utility theory utility and preferences are sorted and washed successively scoring to help make decisions, for example, the effectiveness of the main sequence of housing construction projects to meet whichever commercialization - market utility characteristics; multiple participants - distribution utility features, and ultimately achieve the purpose of social effects.

### **2.3.3 Expected**

For participants in the real estate economy, effectiveness and utility of the purchase of housing real estate investment choice depends largely on the psychological expectations. Is expected to make a subjective judgment before the investment decision-making person or entity, subject to a number of factors, it is an extremely complex and dynamic process. And most people expected investments will be on the economy and even have some impact. Real estate as a commodity, is a durable, with high prices, investment, long construction period and so on, so the expected played an important role. In the actual investment to buy or not buy up the phenomenon is caused by psychological expectations. Forecast to determine whether an investment as well as a generally favorable levels of profitability, mainly through future housing supply-side price of the commodity. Suppose this is expected to be good, then the real estate developers will have to increase investment, expand the scale of construction; on the contrary, the developer may gradually reduce the size of the total real estate development, structural adjustment and even exit the industry investment. Therefore, consumers should not only consider the current level of need and ability to pay for the purchase of real estate, but also on future market trends and their future ability to pay the judgment, the formation of future psychological expectations.

## **3. The price equilibrium theory**

### **3.1 the content of equilibrium theory**

1890 "Principles of Economics" was published the first edition of this book by the Marshall, it is an important western economics academic content, get a very important leading role in western economics and couldn't shake. It is recognized as one of the three Western economics textbooks, Mill's "Principles of Political Economy" and Samuelson's "Economics" textbook are others.

Marshall described the equilibrium price, the marginal utility theory and borrowing costs on production and, with the former described changes in demand, with the latter indicates changes in supply. Demand prices due role of the law of diminishing marginal utility, with the increase in the

number of goods diminishes, which constitute a demand schedule, on the formation of the demand curve graph D (Fig. X-axis represents the number of commodities, Y axis represents the price). Supply prices due to the marginal cost of production increasing regularly to work, with the increase in the number of goods increasing, which constitutes the supply table, in the formation of coordinate supply curve S. A supply and demand curves intersect point, ie equilibrium point. OP That equilibrium price, OH namely equilibrium output, namely the equilibrium price level of turnover.

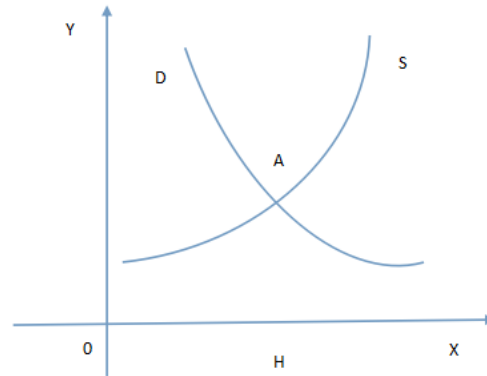


Figure 2 General Equilibrium Analysis

Characteristics of the equilibrium price theory is mainly reflected in the following aspects: (1) the value of labor time neither expressed nor is mutual between the physical expression, but with the price of currency. (2) value is worth the price of supply and demand equilibrium, which describes the relationship between supply and demand on the labor theory of value Marx's influence on prices is the same. (3) the equilibrium price theory from two aspects of supply and demand to investigate the value, so that the supply and demand factors in the value of being born decision to change the supply and demand factors outside the labor theory of value and biochemical approach. (4) for the first time getting the mathematical and psychological into the value of the decision. Proof of the fact that economic development, by the supply side and the demand side of the market based on supply and demand determined the market value of the transaction price is the most authentic expression, so the price determination mechanism is most conducive to the functioning of markets.

### 3.2 Applications Price Equilibrium Theory

According to the law of supply and demand economics, if other factors remain unchanged, in general, the market demand for a certain commodity prices negatively correlated with itself, with its own supply quantity prices are correlated. That price increase will reduce demand and increase supply, lower prices will increase demand and supply reduction, and in the coordinates on the graph, the slope of the demand curve in general merchandise is negative, while the supply curve is positively sloped. Therefore, the use value of housing for the pursuit of buyers, housing downward sloping demand curve, the slope is negative.

However, due to the special nature of the real estate market trading partners, people tend to land and housing as an investment product, rather than just rely on the importance of material life. Thus, the demand for real estate market not only the use value of the real needs of the pursuit, the pursuit of more asset value of investment demand, and these two types of housing demand in some cases can be transformed. For the pursuit of return on investment for the purpose of buyers can't be established. Therefore, when a substantial increase in investment transactions with the real estate market supply and demand can not explain the theorem of demand and supply and price changes.

For the above may use economics theory of elasticity and equilibrium price model to make more intuitive explanation. Figure 3 on the following page, Ss represents short-run supply curve, Ls represents a long-term supply curve, D represents the demand curve. In the short term, the supply of housing products less elastic supply curve slopes greater approximately vertical state, while demand for housing products are flexible, the slope of the demand curve is small. With economic development and per capital income levels, rural to urban migration ,from D1 moves to D2. Since it is difficult to increase housing supply in the short term, the supply curve unchanged, the equilibrium house prices rose from P1 to P2. Rise in the equilibrium price of such housing prices is

expected to continue to strengthen, increasing investment in housing demand, which led to housing demand curve shifted to the right again, moving from D2 to D3, the equilibrium price rose again, rising from P2 to P3.

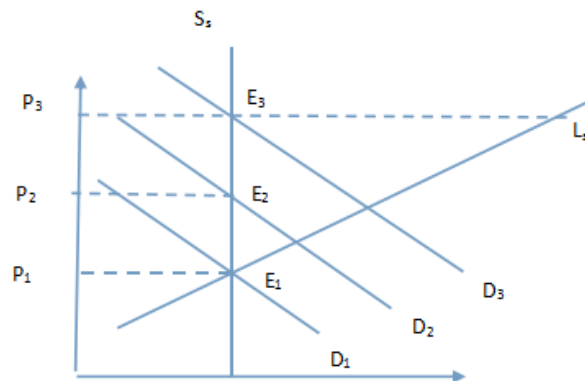


Figure 3 explain equilibrium analysis of real estate price changes

According to the income effect, rising prices and real incomes will want the ability to purchase home buyers tends to decrease, thus resulting in reduced demand for real estate market, housing prices upward momentum weakened. High prices make the real estate industry profit growth, increasing housing supply. Increase housing supply will make housing prices is expected to further weaken. In this case, if there is an external shock, such as the emergence of buyers tighter credit conditions, increase the supply of land helping to increase supply and curb demand situation, housing prices is expected to be completely disappear, leading to investment sharp drop in housing demand, the demand curve to the left parallel movement, moving from D3 to D2, then move to D1, so that it will form a growing excess supply. Excess supply accumulated to a certain extent, the role of the price mechanism, house prices will fall dramatically, leading to the real estate bubble burst.

#### 4. Summary

Production cost theory, utility theory in the formation of real estate prices have played a very important role. On the production costs of real estate restored to the position of general production enterprises, cost plus a reasonable profit providers constitute the eyes of producer prices; utility theory is that people from the psychological point of view to study the psychological preferences of consumers and investors, expected final selection decision, the psychological factors can not be used to explain the theory of value, but the real estate price formation at stake. But they both have some shortcomings, simply because no matter from producers or from consumers are unable to determine the final price of real estate, only the way changed the supply and demand side, the price adjustment, the curve translation research to be able to fully understand, and to get the price changes direction conclusions. Therefore, this choice is to study the formation of urban real estate prices supply and demand equilibrium analysis.

In front of the theory as a basis for analysis, considering all the important factors of supply and demand can affect the price of paper argues that the demand side, prices of factors mainly reflected the population, expectations, alternatives, preferences, purchasing power in five areas; from the supply angle, mainly for the industry profit margins, developers costs, production scale, the developers expect six government land system, the industry organization model.

We hope the main factors determine the price of real estate after the government during price regulation can be more targeted, to seize the main key to solve the problem.

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