Characteristics and functions of China's benchmark land price

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SUMMARY

According to Chinese law, the construction land in the city belongs to the state. The government should play the role entrusted by the state, achieve the overall goal of sustainable development of the national economy, prevent the loss of state-owned land assets, inventory the value of state-owned construction land assets, and effectively manage land prices is one of the important means.

The benchmark land price is compiled on a city by city basis, distinguishing between commercial, residential, industrial, public management and public service uses, and setting the average land price of state-owned construction areas within the connotation of land price.

The preparation of benchmark land price is based on the classification of land use, selecting sample points within each land level to evaluate its land price, and then calculating the average land price of each level.

The benchmark land price has strong current trend and serves as the basis for setting the bottom price of land transfer by the Chinese government. It is also the basis for the price system of state-owned construction land asset inventory and one of the technical methods for land price evaluation. Plays a pivotal role in government land management and is one of the important levers for the government to achieve sustainable development goals.

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According to Chinese law, in urban planning and development, urban construction land is owned by the state. This ownership structure makes the state dominant in the distribution, utilization and protection of land resources. At the same time, the state is responsible for the management and disposal of urban construction land, including ensuring the rational allocation of land resources, optimizing urban spatial layout, and maintaining public interests and ecological balance.

In order to achieve the overall goal of sustainable development of the national economy, the government needs to give full play to the functions entrusted by the state, and promote the coordinated development of economy, society and environment through planning guidance, policy regulation and law enforcement. In this process, it is very important to prevent the loss of state-owned land assets, which is not only related to national economic security, but also directly affects social equity and stability. Therefore, the state needs to scientifically and reasonably determine the land price in the process of land transfer, mortgage and other land use rights disposal, and regularly check the asset value of state-owned construction land, find out the family background of land resources, and provide the basis for scientific decision-making. Effective management of land price has become one of the key means to achieve the above goals.

As an important starting point of land price management, the state, in accordance with relevant laws, requires all district and county-level administrative units in the country to formulate and regularly update the benchmark land price system within their administrative regions. As the core system of land price management in China, the system provides a unified reference for economic activities such as land appraisal, transfer, mortgage, and helps to regulate the order of the land market and improve the efficiency of resource allocation. The formulation of the benchmark land price comprehensively considers the level of regional economic development, land supply and demand, infrastructure conditions and other factors, ensuring the scientificity and fairness of land price management. The benchmark land price is the only authoritative land price standard set by the government and covering the whole country. Through the effective implementation of the benchmark land price, the country can better realize the optimal allocation of resources under the public ownership of land, promote the process of urban-rural integration, and ultimately serve the long-term goal of sustainable development of the national economy.

1. Characteristics and main contents of China's benchmark land price

1.1The state regulates the technical methods and paths for the formulation of benchmark land prices by issuing unified technical standards

In order to unify and standardize the technical methods and paths for the formulation of the benchmark land price, the state has formulated and promulgated the regulations on urban land appraisal and the regulations on the classification and grading of urban land. Following the three unified principles of "unified technical specifications, unified data standards, and unified results requirements", the formulation of the benchmark land price has been defined in detail from the aspects of workflow, data investigation and collection, factor selection, benchmark land price evaluation, determination of benchmark land price, compilation of the table of correction factors for benchmark land price, data format and specifications, compilation of maps, updating and application of results, ensuring its legitimacy, comparability and scientificity among different regions.

1.2The benchmark land price covers all districts and county-level administrative units in the country

China has a total of 31 provinces and municipalities directly under the central government, more than 300 prefecture level cities, and more than 2800 county-level administrative units(Excluding Hong Kong, Macao and Taiwan). At the national level, the county-level administrative unit is the key level in the national power structure. The county-level government directly faces the grass-roots society and undertakes multiple functions such as policy implementation, economic operation, public service supply and social governance.

1.3Main contents of benchmark land price

The benchmark land price is the regional average price of the legal maximum use year land right of a certain appraisal period date under the conditions of setting the development degree, term of land use right, plot ratio and other conditions determined by the government for the construction land of different grades or different homogeneous areas under the average development and utilization conditions, respectively evaluated according to the purposes of commercial, residential, industrial, public management and public services, within the scope of urban construction land determined by the overall land use planning.

The two key elements that constitute the benchmark land price are land grade and land price.

1.3.1 Land grading

Type Land grading is based on the economic and natural attributes of urban land and its status and role in social and economic activities. It comprehensively analyzes the use value of urban land, reveals the regional differences of land quality within cities and towns, and evaluates the grade of urban land.

There are two types of urban land grading: comprehensive grading and classified grading. Comprehensive grading is the comprehensive analysis and evaluation of various economic, social and natural factors that affect the quality of urban land, and the land grade is divided according to the difference of evaluation results. Classification and grading is to analyze and evaluate various economic, social and natural factors that affect the quality of a certain type of urban land, and classify the land according to the differences of classification and evaluation results; Classification and grading include commercial land grading, residential land grading, industrial land grading, public management and public service land grading, etc.

The urban land grading mainly analyzes the differences of the current land quality. If necessary, the impact of urban planning and other factors on the land grade should be considered. Cities with a permanent urban population of more than 500000 need to be comprehensively graded and classified; Other cities and towns shall be comprehensively graded and classified at the same time when necessary.

The division of land grade should follow the principles of regional differentiation and land income difference.

1.3.1.1 Principle of regional differentiation

The core of urban land grading is to follow the principle of regional differentiation, which emphasizes the systematic analysis of land location conditions and land characteristics. Specifically, it is necessary to deeply explore the land location conditions such as traffic accessibility, infrastructure completeness, the distance between adjacent business centers or administrative centers, as well as the spatial distribution laws and combination characteristics of land characteristics such as geological stability, terrain slope, environmental quality, etc. By analyzing the interaction of these factors, reveals the differentiation of land quality under different location conditions, such as the significant differences in land value and utilization potential between the urban center and the suburbs.

Based on this, the grading work should focus on identifying and classifying regional units with similar location conditions and land characteristics. These units need to show a high degree of consistency in key dimensions such as transportation convenience, supporting facilities level and environmental suitability. For example, land plots close to subway hubs, with dense commercial facilities and good environmental quality are classified into the same grade, while areas with inconvenient transportation and lack of supporting facilities are classified into another grade. Through scientific division, the definition of land grade can objectively reflect the gradient change of land quality and provide a solid foundation for land value assessment.

1.3.1.2 Land income difference principle

The classification of urban land grade should strictly follow the objective distribution law of land income within cities and towns. The core of this principle is that there are significant differences in the economic profitability of land with different location, function and utilization conditions. For example, the urban central business district usually has higher land value-added potential due to convenient transportation and dense population flow, while the income of suburban or industrial land is relatively low. Therefore, the division of land grade should be based on the quantitative analysis of income difference, to ensure that the grade boundary is naturally consistent with the income gradient, and to avoid the artificial separation of economic laws.

In the specific implementation, it is necessary to comprehensively evaluate the land use, infrastructure, environmental quality and other factors. Commercial land often forms a high-yield core area because of its intensive degree and market demand intensity; Residential land is affected by public service facilities, and the income decreases in circles; Industrial land is mainly concentrated in the peripheral areas with low income due to its cost sensitivity.

1.3.2 Evaluation of land price

The benchmark land price is based on the land grade. Specifically, it is to assess the average land price of each land grade under each type of land use. To evaluate the average land price of each grade, first define the connotation of the benchmark land price of each grade, and then evaluate the land price under the set connotation.

1.3.2.1 Definition of the connotation of benchmark land price

The connotation of the benchmark land price is determined according to the overall situation of the current situation in the region and taking into account the needs of government management, mainly including: the land right type, type of land use, term of land use right, valuation date, development and utilization degree, plot ratio and other development and construction conditions corresponding to the benchmark land price.

The right type of benchmark land price is land use right. The land ownership of urban construction land in China is state-owned, and the state only transfers the land use right of state-owned construction land for a certain period of time to land users according to law. In other words, in cities and towns, land users can only purchase or transfer land use rights.

Land use type setting. According to the technical regulations issued by the state, the land use types of the benchmark land price should at least include commercial, residential, industrial, public service and public management.

Land use right period setting. As mentioned above, If land users in cities want to purchase construction land use rights,the main channel is to purchase them from the state.When the state transfers the land use right, it will limit the land use period. The land use period of the

benchmark land price is set according to the maximum use period of each land use specified by the state, that is, the use period of commercial is 40 years, the use period of residential is 70 years, the use period of industrial is 50 years, and the use period of public service and public management is 50 years.

Valuation date setting . The valuation date of the benchmark land price is one of the core connotations of the benchmark land price. It represents the specific time point corresponding to the land price evaluation. It is usually set at the beginning of the year before the government publishes the results or at a specific evaluation time point to ensure the timeliness of land price.

Development and utilization degree setting. The degree of land development and utilization of the benchmark land price varies by region, land grade and land use, and is set according to the average status of each land grade. It is usually defined based on the perfection of infrastructure conditions inside and outside the red line of the parcel of land. The infrastructure conditions inside and outside the red line of the parcel of land mainly include road, power supply, water supply, drainage, communication, heating and other conditions. Within the red line of the parcel of land is usually flat. China is a vast country located in the northern hemisphere, with a latitude difference of nearly 50 degrees between the southernmost and northernmost, spanning five temperature zones from tropical to cold temperate zones. Some development conditions will vary among cities due to the different regions of cities. Heating, which is essential in the north, is totally unnecessary in the south.

Plot ratio setting. Plot ratio is a key parameter in the evaluation of benchmark land price. The determination of plot ratio is usually based on the current situation of land use, urban planning requirements and regional average development level, and varies according to the type of land use.

1.3.2.2 Calculation of benchmark land price

The benchmark land price is evaluated by using the market transaction price and other data, mainly including the investigation of land price samples, the division of calculation areas, the calculation of land price sample points, the correction of land price of sample points, the drawing of land price map of sample points, the use of land price of sample points to evaluate the grade of benchmark land price and other technical links.

Surveying land price samples. Specific requirements include:

(1) The survey is conducted by land grade or homogeneous area;

(2) The land price samples shall be selected by classified unequal sampling, the number of samples shall meet the requirements of mathematical statistics, and the total number of

samples at each grade shall not be less than 30 in principle; If the total number of samples is less than 30, a full sample survey shall be conducted;

(3) The samples shall be representative and evenly distributed in principle;

(4) The selected sample should be able to obtain the land price or land use benefit and the corresponding land condition information at the same time;

(5) Economic data such as land use efficiency shall not be less than the data of recent two consecutive years;

(6) The survey data must be filled in the corresponding survey form.

Divide the measurement area.

(1) The benchmark land price takes the land grade as the basic measurement area. When the range of land grade is too large, the appropriate land price in the measurement area can be subdivided into homogeneous regions according to the differences of urban land conditions.

(2) If the number of sample points in the measurement area is small and cannot meet the demand of sample points inferred by the model, it can be properly merged through the identification of homogeneous regional identity.

Sample points for calculating land price. The following methods are used to calculate the land price of sample points:

(1) Calculating the land price by using the data of land use right transfer

(2) Calculation of land price by using land use right rental data

(3) Calculation of land price based on rental data

(4) Calculation of land price using the data of land joint venture

(5) Land price calculation based on land for house data

(6) Calculation of land price with counter rental data

(7) Calculation of land price with housing sales data

(8) Calculating the land price with the sale data of commercial housing

(9) Calculating the land price with the data of new urban construction land

(10) Calculation of land price using joint construction share data

Correcting the land price of sample point. According to the connotation of the benchmark land price, the calculated sample land price is corrected to the price consistent with the connotation of the benchmark land price. The correction contents generally include:

transaction situation correction, valuation date correction, plot ratio correction, land price floor distribution correction, development degree correction, transfer period correction, etc.

Draw the sample land price map. Specific requirements are as follows:

(1) Draw the sample land price map with the urban cadastral map, land use status map or topographic map as the base map;

(2) Mark the land price sample data on the map according to different uses such as commercial, residential, industrial, public management and public service;

(3) Land grade (homogeneous area) boundary marked on the map;

(4) The land price data is directly marked on the map. When there are many data, the hierarchical legend can be used to represent the distribution of land price sample points.

Use the sample land price to evaluate the grade benchmark land price. Specific requirements are as follows:

(1) Determine the number of samples that meet the requirements of mathematical statistics.

(2) Within the grade (region) with samples, the simple arithmetic mean, weighted arithmetic mean, median, mode, etc. are selected as the benchmark land price of the grade (region) according to the distribution law of the sample land price.

1.3.3 Basic system of benchmark land price

According to the provisions of the law of The People's Republic of China on the administration of urban real estate, the benchmark land price shall be determined and published regularly. The results of the benchmark land price will be released after being checked and accepted by the government at or above the county level. According to the requirements of Ministry of Natural Resources, it needs to be updated at least every three years. The updating process must be connected with the land spatial planning and reflect the changes of the land market, so as to ensure that the land price standard keeps pace with the level of economic and social development.

2. The role of China's benchmark land price

2.1 Market regulation and government guidance

Market regulation and government guidance play a central role in the management of urban construction land in China. As an important state-owned resource, the supply and allocation of urban construction land need to be carried out under the framework of the government to ensure public interests and market order. As the official guidance price, the benchmark land price is regularly released by the government. When evaluating the land to be transferred, the

government refers to the benchmark land price and adjusts the location and land use differences to obtain a reasonable transfer base price, which not only simplifies the evaluation process, improves administrative efficiency, but also prevents the loss of state-owned assets. On the other hand, the release of the benchmark land price has enhanced market transparency, transmitted value signals to the market, and played a role in promoting fair competition and preventing excessive market fluctuations.

2.2 Land management policy tools

In the compensation for land expropriation and demolition, the benchmark land price provides an objective basis to ensure that the compensation standard is consistent with the regional value and reduce disputes. When collecting rural collective land, the benchmark land price combined with the cost accounting of farmland conversion plays a role in balancing the interests of all parties. In addition, it also supports tax calculation, is the tax basis of land value-added tax, and helps to improve the financial system.

2.3 One of the foundations of parcel assessment

In the regulations for urban land appraisal, the modified method of benchmark land price coefficient is determined as one of the evaluation methods of land price, and has been widely used in land price evaluation. Through the correction of plot ratio, development degree and other factors, the parcel price is evaluated. Especially when the data and evaluation factors of other evaluation methods are difficult to obtain, it plays a vital role in the valuer's evaluation of land price.

2.4 Accounting of national asset value

In the nationwide inventory of natural resource assets, the benchmark land price is revised to build a county-level inventory price system to estimate the economic value of construction land and agricultural land. After correcting the regional and use differences, the benchmark land price has been transformed into the basis of asset accounting, supporting the management of state-owned assets and strengthening the balance between resource protection and utilization.

3. Conclusion

The benchmark land price is a price benchmark for state-owned construction land that is publicly released by the municipal and county governments and has a clear legal status across the country. Its formulation is based on the national unified technical standards and is updated regularly as required. It ensures its scientificity, rationality and current situation.

The achievements have played an important role in the valuer's land price assessment, the government's innovation of macro-control methods, the handling of the relationship between the government and the market, and the full play of the decisive role of the market in resource allocation under the premise of ensuring that land resources are controlled by the state.

BIOGRAPHICAL NOTES

Engaged in long-term work and research in land price evaluation, land price management policies, land price monitoring and public land price system construction, and land use remote sensing dynamic monitoring. Designed and developed a national urban land price dynamic monitoring information system, and participated in the hosting of the urban land price dynamic monitoring project, winning the first prize in land and resources science and technology. Member of China Land Science Society, Fellow Member (Appraisal Groups) and Expert of China Real Estate Valuers and Agents Association.

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