Article

Regional Heterogeneity in China’s Rural Collectively Owned Commercialized Land Market: An Empirical Analysis from 2015–2020

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Abstract: The ongoing collectively owned commercialized construction land market (CCCLM), established in China in 2015, calls for a deeper understanding of the market’s performance so as to promote integrated urban-rural development. This study provides an empirical analysis of the regional heterogeneity of CCCLM, based on 4595 collectively owned commercialized construction land (CCCL) transaction cases around the country from 2015 to 2020. The marketization degree measured with a weighted average approach indicates that the marketization level of CCCL is low, and typical pilots have a significant demonstration effect. The results show that pilot areas in the east have more active CCCL transactions, with higher quantities, areas, and transaction values of CCCL compared with central and western regions. However, most pilot areas use villagers’ self-governance organizations or mixed subjects as the implementation players, and trade CCCL by negotiation or listed conveyance. It turns out that the value of CCCL cannot be better realized in such a market environment because of its low degree of specialization and marketization. This study presents comprehensive empirical evidence for promoting the construction of the rural land market in China and in other transition economies worldwide.

Keywords: collectively owned commercialized construction land market (CCCLM); land transactions; marketization degree; regional differences; price characteristics

1. Introduction

Land marketization is an essential method of promoting the efficient allocation of land resources and the development of a market economy [1–3]. For many transition countries, imperfect land markets are popular due to the uncertainty of transaction environment [4–6], which can be traced to gaps in land tenure and government arrangements [7,8]. China, a rapidly urbanizing country that has undergone the transition from planned economy to market economy, developed an increasingly mature urban land market after the various reforms and the opening up of the economy [9]. Unlike some transition economies that embrace private land right systems completely, China insisted on a public ownership system and established a centralized system for land management. After 1994, when the reform of tax federalism was implemented, local governments were encouraged to earn land finance and develop the urban construction land market by converting farmland for urban use, as rural land is not allowed entry to the land market. Even though governments in some developing economies use land-based finance to support massive city development investments [10,11], local governments in China, the only land suppliers in the market, depend on land finance particularly. The urban-rural dualistic land ownership system and a unique land finance system, in the context of political centralization and as a fundamental land institution in China, has great impact on establishing an integrated land market and releasing rural construction land [12–14].

After a series of explorations of providing rural construction land with market access, China began a reform of the entry of collectively owned commercialized construction land
(CCCL) into the market in 33 pilot areas around the country in 2015. By the end of 2019, the five-year reform of collectively owned commercialized construction land market (CCCLM) was over, and was followed by the amended Land Administration Law in 2020. In the same year, the “Key Tasks of New Urbanization Construction and Urban-Rural Integration Development in 2020” and the “Regulations on the Implementation of the Land Administration Law” were issued one after another, calling for the comprehensive promotion of the entry of CCCL into the market. Since then, legal markets of CCCL have gradually been established around the country [15]. In September 2022, “Guiding Opinions on Deepening the Pilot Work of the Market Entry of collectively Owned Commercialized Construction Land” proposed to continue a new round of pilots which emphasize establishing transaction rules and strengthening regulations in the next reform of CCCLM.

With the implementation of the market entry reform, construction of CCCLM in China has attracted continuous theoretical and empirical analysis. Some researchers have analyzed the ongoing CCCL marketization from the perspective of market equilibrium, demonstrating that the rural land market has improved land allocation efficiency and increased social welfare [16–18]. Meanwhile, other scholars have evaluated practical dilemmas [19,20], stakeholders’ behavior [21–23], and the distribution of land incremental value [2,24], among other subjects. During the reform period, each pilot area takes various actions and formulates specific policies or regulations to restrict market participants’ behavior and protect their rights and interests, and thus ensure the smooth operation of CCCLM [17,20,25].

However, due to the limitations of CCCL itself (such as its inferior location, restricted use, and decentralized property rights), the lack of government activism, and the imperfect trading rules, CCCLM still suffers from a low degree of marketization and high transaction costs [14,26–29]. These imperfections have made the construction of CCCLM more difficult. On the one hand, villagers’ rights and interests cannot be protected well, resulting in their low willingness to participate in the market [21,28,30]. On the other hand, even lower prices still fail to counteract enterprises’ negative attitude toward CCCL, which is caused by high future costs [26]. Besides, these concerns reveal only a portion of the market performance. Although recent studies have empirically quantified the effects of construction of CCCLM [31], most of them only focus on localized cases rather than the national scale. As the new market has developed for several years, a detailed empirical analysis on a national scale is required to estimate the operation of CCCLM.

To that end, this study collected 4595 transaction cases during 2015 to 2020 from 26 pilot areas around the country, aiming to explore the performance of CCCLM, especially its transaction environment. We first analyze the transaction volumes, areas, and values, combined with price movements to obtain an overview of the market size and activity of CCCL. Then, we visualize the market environment of CCCL by analyzing transaction rules in regard to implementation players, entry methods, and trading methods. Combining the reform background, we analyzed different rules adopted by 26 pilot areas and compared their corresponding prices to reflect the degree of specialization, safety and transparency of CCCLM. Using a weighted average approach, we measured the marketization degree of each pilot and evaluated the performance of CCCLM in different regions. Lastly, we provide a more convincing set of recommendations for market improvements.

The Section 2 introduces the study areas and data source. In the Section 3, an overview of the size of CCCLM and its transaction environment (including implementation players, entry methods, and trading methods) is provided, followed by the marketization degree of CCCL in each pilot area. Policy implications are offered based on the above analysis. Discussion and the conclusions of this study are presented in the Section 4.

2. Methodology

2.1. Study Areas and Data

China carried out reform of CCCLM in 15 counties nationwide in 2015; subsequently, the pilot areas were expanded to 33 counties. In this study, 26 out of 33 pilot areas, excluding
seven pilots without publicly available data on CCCL transactions, are selected as the study areas. Transactions in these 26 pilot areas provide an initial indication of the status of CCCLM since the beginning of this reform. The reason for this is that these pilots are spread across the eastern, central (or middle), and western regions of the country, and each region basically contains a representative pilot area that reflects the market situation of CCCL in that area. The rural land market in the south-eastern coastal regions, where China’s land market took shape, was built earlier and is more mature than other regions. For example, Naihai developed the first official rural construction land market in China, and the Nanhai approach has been taken by many pilot areas [18]; Deqing has rich experience in land conversion quotas, which is useful in addressing regional imbalances in land endowments and increasing local revenue [32]. Various local innovations have been created in the western regions, such as land coupons in Chongqing, split registration of mixed-CCCL in Meitan, etc. The distribution of 26 pilot areas in this study is shown in Figure 1, with different colors in the figure indicating the region to which the pilot area belongs.

![Figure 1. Spatial distribution of the 26 pilot areas.](image)

We conducted an empirical analysis based on 4595 valid transaction cases of CCCL (4665 in total) after excluding the cases with incomplete information (e.g., transaction price, methods, etc.). The time span of these cases ranged from 2015 to 2020. The data are collected from 26 pilot areas and come from multiple sources. For pilot areas with publicly available CCCL transaction data, we obtained data from various local official websites such as the Local People’s Government Network, Public Resources Trading Platform, and the Land Planning Department. However, because CCCL transactions have not been carried out nationwide yet, the related transaction data for some regions had not been announced at the time of this study; we contacted the department in charge of this reform and were provided with the CCCL transaction ledgers. The transaction data collected in this study included plot information, transaction rules (e.g., trading methods, etc.), and transaction prices.
2.2. Methods

The purpose of developing land markets is to increase the value of land assets by improving its competitiveness. The share of the land supply with transparent and competitive means is usually used to reflect the degree of land marketization [33]. However, this indicator ignores the supply methods in the incomplete market (e.g., negotiation), and thus fails to detect the regional differences in land marketization. A weighted average approach can take both land supply structure and its market weight into account [34,35]. Therefore, this study uses a weighted average approach to measure the marketization degree of CCCL. Compared with the state-owned land market, CCCLM suffers from the absence of transaction players and the immaturity of transaction rules. Therefore, we explore the marketization degree of CCCL from three aspects: implementation players, entry methods and trading methods.

Firstly, the choice of implementation player is an important indicator of the specialization of transaction. As the nominal owner of CCCL, the “rural collective” (nongmin jiti), is not a legal person. CCCL is managed by various implementation players, including villagers’ self-governance organizations (SGOs), collective economic organizations (CEOs), commissioning agency organizations (CAOs), and mixed subjects (MS). According to the actor network theory, human actors, such as implementation players, local governments and land users, as well as non-human actors, such as capital and land, work together to build the CCCLM, driven by the consistent goal of rural revitalization [31]. The implementation player serves as a bridge between the rural collectives and land users. They have an important influence on whether the transaction can be carried out smoothly and whether the farmers’ benefits are reasonable [36]. As land managers and policy implementers under the decentralized system, local governments have become the main force in the actors’ network in building CCCLM [37,38]. SGOs have a high degree of local knowledge and can better represent farmers’ interests, but they are not well recognized by the market as special legal persons. Thus, they generally assist the government in executing relevant decisions in CCCL transactions. Pilot areas with a better economic base have generally established CEOs. They are more professional than SGOs and have decision-making power in CCCL transactions. CAOs are mostly led by the local government. Although CAO has a perfect organizational structure, but it is difficult to ensure that the commissioning behavior is in line with the wishes of all villagers, and it is more prone to rent-seeking and corruption problems. As the degree of universality, professionalism, and legality of different implementation players differs, transaction costs are incurred. The involvement of different types of players also affects the price of CCCL [14,23]. The degree of specialization of different players can be measured the following formula:

\[ IS_p = \frac{\sum_i Q_{pi} W_i}{\sum_i Q_{pi}} \]  

where, \( IS_p \) is the specialization level of implementation player in pilot area \( p \), \( i \) is four types of players, \( Q_{pi} \) is the number of parcels traded in pilot area \( p \) under player \( i \), and \( W \) is the weight of each player, which is defined as the average price of CCCL under a particular player over the study period, in comparison to the highest price level among the four players.

Secondly, entry methods are used to show the safety of CCCL transaction, since different means of entry methods are characterized by different degrees of transaction uncertainty due to different transaction years [24]. At present, CCCL in the 26 pilot areas is transferred in three ways: conveyance (Churang), leases (Chuzu), and investments (Rugu). The degree of safety of these different entry methods can be measured with the following formula:

\[ EM_p = \frac{\sum_j Q_{pj} W_j}{\sum_j Q_{pj}} \]  


where $EM_p$ is the safety level of entry method in pilot area $p$, $j$ represents three types of entry methods, $Q_{pj}$ is the number of parcels traded by method $j$ in pilot area $p$, and $W$ are the weights of each entry method, defined as the average price of the CCCL traded by a particular method in comparison to the highest price level among the three methods.

Thirdly, trading methods that are often used to measure the level of marketization in the state-owned land market are applied in this study to gain a preliminary view of the transparency degree of CCCL. At present, there are four kinds of trading methods for CCCL: negotiation (Xieyi), tender (Zhaobiao), listing (Guapai), and auction (Paimai). The transparency degree of CCCL can be measured with the following formula:

$$TM_p = \frac{\sum_k Q_{pk} W_k}{\sum_k Q_{pk}}$$  \hspace{1cm} (3)

where $TM_p$ is the transparency degree in pilot area $p$, $k$ represents four types of trading methods, $Q_{pk}$ is the number of parcels traded by method $k$ in pilot area $p$, and $W$ are the weights of each trading method, defined as the average price of CCCL traded by a particular method in comparison to the highest price level among the four trading methods.

Therefore, the marketization degree of CCCL can be measured by Formula (4):

$$TE_p = IS_p \times W_1 + EM_p \times W_2 + TM_p \times W_3$$  \hspace{1cm} (4)

where, $W_1$, $W_2$, $W_3$ are the weights of implementation players, entry methods and trading methods. Since the three transaction rules are of the same importance for CCCL transaction, we set all the weights to 1/3 in this study [39,40].

3. Results
3.1. An Overview of CCCLM

3.1.1. Transaction Volumes, Areas, and Values

From 2015 to 2020, 4595 CCCL transactions were completed in 26 pilot areas, with a total area of 3970 hm$^2$ and a total value of 513.73 billion yuan. Through comparative analysis, we find that the quantity, area, and value of CCCL transactions varied significantly across pilots, regions and years, showing the varied performance of CCCLM.

Firstly, Figure 2 shows the significant differences in the number of CCCL transaction cases and areas among the 26 pilot areas. In terms of transaction cases, Wujin ranked first, accounting for 40.02%; Liuyang came second, accounting for 9.10%; and Changyuan was third, accounting for 7.16%. With regard to transaction area, Wujin, Liuyang, and Nanhai were the top three, accounting for 31.22%, 12.79%, and 10.89%, respectively. Dali in Yunnan, which has the lowest number of transactions and area, had only 3 CCCL transactions, and the transaction area was only 0.04% of the total transaction area. It is noteworthy that the extremely large number of CCCL transactions in Wujin is strongly related to its establishment of township enterprises from the 1980s onwards [41]. A large proportion of the CCCL traded in Wujin is land for township enterprises that has been traded in the past but has not gone through legal procedures.

Secondly, dividing the 26 pilot areas into western, central (or middle), and eastern regions, we find that the total transaction value of CCCL in the eastern region far exceeds that in the central and western regions (see Figure 3). At the county level, the transaction value mainly comes from Nanhai, Daxing, and Wujin, which may also reflect the high CCCL prices in Nanhai and Daxing. In the first three years of the reform, the initial construction of CCCLM took place, and the total value of CCCL transactions was relatively small. With the continuous promotion of reform policies, the market environment has been gradually improved, and the attitude of market participants has been gradually positive; thus, the total transaction value has increased significantly since 2018.
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The average price of CCCL in each pilot area provides a better understanding of its market performance. Figure 4 shows the price movements of CCCL price in 26 pilot areas. As we can see, CCCL prices in the eastern region were much higher than elsewhere. The price of Daxing, Nanhai, and Songjiang in the eastern region are the top three among all of the pilot areas. Daxing had the highest price at 22,792 yuan/m²—four times higher than price in Naihai—which shows the extremely high land price in Beijing. In contrast, the lowest average price is even less than a hundred yuan per unit of CCCL in Pingluo. The huge price difference reflects the economic disparity between pilot areas, and reveals the difficulty of promoting the marketization of CCCL in economically backward regions [42].

We also found that the area of CCCL traded in the central region was more than twice that of the western region, but its total transaction value was lower than that of the western region, as was the average price. Therefore, the market of CCCL in the east was more active than that in the central and western regions during these years.
3.1.2. Market Environment

To visualize the different market environment of CCCL, three maps of the spatial distribution of the types of transaction rules in the 26 pilot areas were generated by ArcGIS. First, according to Figure 5, there is no significant spatial relationship between the choice of implementation players across pilot areas. Villagers’ self-governing organizations (SGOs) include village committees and village groups. They are chosen by eight pilot areas due to their low implementation costs and higher adaptability. For less economically developed areas, the government is more politically motivated, so the government will try to save organizational costs while fulfilling political tasks [43]. SGOs are a good choice at this time due to their low implementation costs and higher adaptability. Collective economic organizations (CEOs), such as collective economic cooperatives or share cooperatives, initially separate the political and economic functions of grassroots governance organizations. In areas with a high level of economic development, the government has the incentive to improve institutional rules to visualize collective assets to better support local economic development, such as Songjiang and Yiwu. Commissioning agency organizations (CAOs) are entrusted by rural collectives or local governments to manage affairs related to CCCL. CAOs have to be sustained by stable collective incomes; thus, only four pilot areas in this study chose this kind of implementation player. Mixed subjects (MS) are those with two or more types of implementation players. This kind of subject can be better adapted to the actual situation of the different plots in each pilot area, and eight pilot areas chose it. Figure 6 shows the percentage for each method in the 26 pilot areas, where the size of the pie chart reflects the average price for the pilot area. Overall, 3602 pieces of CCCL were traded through conveyance, accounting for 78.39% of the total number of transactions. It seems that the average price of CCCL in each pilot area is not related to its choice of entry method. As we can see, most pilot areas traded CCCL only by conveyance, and only a small fraction of the pilot areas traded CCCL through leasing. Nanhai traded all CCCL by leasing, which may be attributable to the long-standing invisible market and insecure property rights in Naihai [25]. Compared with other regions, CCCL in the west is traded in a singular way (for instance, conveyance only), whereas pilot areas in the central region favor multiple entry methods. The percentages of trading methods and their average price in the 26 pilot areas are shown in Figure 7. Figure 7 shows more than half of CCCL was traded by negotiation, and these transactions are concentrated in pilot areas with a relatively low average price of CCCL. It also shows that western pilot areas mostly use negotiation as the main transaction method, and in the eastern region, listing is predominant. Less-developed areas have less demand for construction land, and more land can be sold by agreement. Developed areas have a more acute conflict between land supply and demand, and they have chosen an eclectic strategy of land supply, i.e., listing.
under the pressure of central land regulations. The prices of CCCL are largely lower in pilot areas wherein negotiation is the main trading method. The above analysis reveals that current CCCL transactions are mainly traded in the form of negotiation and listing, which means that the degree of marketization of CCCL is low.

![Figure 5. Type of implementation subjects for each pilot area.](image)

![Figure 6. Entry methods and average price in 26 pilot areas.](image)
We also analyzed the price characteristics of each trading rule (see Figure 8). Regarding the implementation players; the price of CCCL corresponding to commissioning-agency organizations (CAOs) was the highest, which is likely to be influenced by the extremely high price in Daxing. After removing the data for Daxing, its price became 1041.56 yuan/m². Prices corresponding to collective economic organizations (CEOs) are significantly higher than those for villagers’ self-governance organizations (SGOs) and mixed subjects (MS). This is because collective economic organizations not only reduce rent-seeking behavior in the CCCL market, but also improve the ability of rural collectives to compete in the land market [14]. Villagers’ self-governance organizations do not possess complete economic functions as market subjects, and therefore there is a lower price in CCCL transactions [44]. Comparing the average price of CCCL under different entry methods, we find that the prices of CCCL traded through leases and investments are higher than those traded through conveyance. We note that only a few CCCL in Daxing, Wenchang, Zezhou, and Liuyang (only two cases) have adopted this method of investment; therefore, this price may have a minor reference value. With regard to leases, after removing the data for Naibi, the price is only 269.81 yuan/m², much lower than prices corresponding to conveyance. We suggest that the value of CCCL can be better realized by transferring than by leasing. In terms of trading methods, the average transaction price of CCCL traded by negotiation is the lowest. The price of CCCL traded through tender is the highest, which is probably because of the significantly higher price in Nainai. The price of CCCL traded by listing is higher than that by auction, which is contrary to our expectations. One possible reason is that there are few pilot areas trading CCCL through auction, and they are all located in the central or western regions. It can be seen that, as with the state-owned land market, there are significant differences in the prices of CCCL under different transaction methods, but whether this difference is a function of the transaction rules or a result of local differences needs to be further explored.
4. Discussion and Conclusions

3.2. Marketization Degree

The marketization degree shows that the highest level of the average price was attained by commissioning agency organizations (CAOs), of which the price weight is thus defined as 1. The villagers’ self-governance organizations, collective economic organizations, and mixed subjects’ price weights are 0.07, 0.27, 1, and 0.04, respectively. In terms of the entry methods and trading methods, the conveyance, leases, and investments’ price weights are 0.39, 0.96, and 1, respectively; the negotiation, tender, listing, and auction price weights are 0.08, 1, 0.25, and 0.17, respectively. Figure 9 shows the marketization degree of the CCCL transaction environment in 26 pilot areas. The average marketization degrees in the east, central and west are 0.34, 0.3 and 0.29, respectively. Additionally, the marketization degree in most pilot areas lies in the range of 0.2 to 0.3 (the highest value is 1). The relatively low marketization degree indicates that the environment for CCCL transactions is not well constructed. According to Figure 9, Daxing and Nanhai in the eastern region, Jinzhai in the central region, and Pidu and Luxian in the western region have a much higher level of marketization than the other pilot areas, with their marketization degree exceeding 0.5. This considerable individual difference not only highlights the demonstration effect of typical pilots, but also implies that unlike the urban land market, CCCLM is not currently characterized by spatial interdependence. This may be because pilot areas are constructing the rural construction land market on the basis of their own resource endowment and local environment (e.g., financial status or actual demand for construction land).

Figure 8. Prices under different market environment.

Figure 9. Completeness level of CCCL transaction environment in 26 pilot areas.
3.3. Policy Implications

This study highlights the regional differences in CCCL transactions and sheds light on the status of CCCL market construction across China. The huge differences in the number of transactions, areas, and transaction values between regions indicate that efforts should be made to encourage the central and western regions, especially the less developed pilot areas, to enter the market of CCCL. Prices of CCCL in the east, such as in Daxing, Naihai, and Songjiang, are significantly higher than those in the central and western regions. This underlines that for pilot areas with low price of CCCL, its price should be improved by enhancing land conditions and the market environment so as to reduce the loss of collective land assets.

Unlike previous studies that focus on either the options of transaction rules in some pilot areas or their implementation effects in a particular region, the present study pays attention to both the options and the implementation effects of transaction rules at the national level. The results regarding the fewer pilot areas and higher prices corresponding to collective economic organizations as implementation players underline the fact that the collective economic organization is not yet sound in most pilot areas. Combining this with the finding that economically developed pilot areas mostly choose collective economic organizations as implementation players, it is suggested that the collective economy should be promoted and the construction of collective economic organizations accelerated. At present, the single-entry method in most pilot areas should serve as a reminder to the pilot areas to consider their actual situation when selecting an entry method in order to make the selection more targeted. In terms of trading methods, negotiating or listing land are the main transaction methods in the current CCCL market, although they correspond to low transaction prices. The low marketization degree of each pilot area shows the need for an improved market environment with high levels of specialization, safety and transparency. Although the eastern region has a larger transaction volume, its market environment does not have obvious advantages over other regions. This may remind policy makers to adjust the interests of the participants in a local context when building the rural land market, rather than blindly imitating other areas. All these factors call for a reduction in transaction uncertainty together with an enhancement of government supervision in order to improve the specialization and marketability of CCCL transactions.

4. Discussion and Conclusions

4.1. Discussion

The construction of the rural land market in China has received widespread attention [45,46]. Compared with previous studies, this work evaluates the marketization degree of CCCL from three aspects (implementation players, entry methods and trading methods), summarizes CCCL transactions at the national level and analyzes the market environment using data from 26 pilot areas around China. It was found that CCCLM in developed regions is more active. This might be due to the large demand for construction land and a sound market environment in those regions [47,48]. By comparing the CCCL price in each pilot area, this study confirms significant spatial differences in CCCL price, which are consistent with what is observed in the urban land market [49].

In the context of political centralization and fiscal decentralization, local governments’ de facto control over state-owned land property rights gives them the ability to achieve their political and economic interests through land use strategies [50,51]. Due to the unclear subject of collective land ownership, CCCLM also faces government intervention (either leadership or support) in the process of market construction, which highlights the roles of implementation player and entry method in evaluating the degree of marketization of CCCLM. The trading rules provided by the government and driven by its own interests are not perfect, and have a direct impact on the transaction environment of CCCLM. Different market environments and their heterogeneous effects were found in this study. The findings emphasize the role of differential strategies in developing CCCLM [20,52]. Villagers’ self-governing organizations and mixed subjects are the main implementation players in most
pilot areas, although the results suggest that these two types of players fail to realize the value of CCCL due to their lack of professionalism. This may be reflected by the lower transaction prices. CCCLM with collective economic organizations and commissioning-agency organizations has a higher transaction efficiency because organizations can reduce the opportunistic behavior of village leaders and ensure legality [14,53]. As pointed out by the available literature, the security of land use rights is an important criterion for the market liberalization of different methods [54]. Once the transaction security and right security of CCCL have been guaranteed, long-term conveyances will take place, with higher prices than short-term ones. In contrast to previous findings [55], this study shows that listing, rather than auctions, leads to higher land prices in CCCLM. The market environment is not well developed, and there is no significant spatial correlation among pilot areas, indicating that current CCCL transactions are still in the exploration stage and no unified trading rules have been formed. This work fills the gap in the understanding of the ongoing CCCLM and provides a reference for the further establishment of a unified rural-urban land market in China and in other transition economies.

Despite the contributions of this study, data availability remains a limitation. Some of the data have different statistical calibers or recording methods; as a result, differences, such as those between local conditions, should be taken into account when collating the data. This process may cause certain errors due to different classification standards. In addition, because of data limitations, we were unable to analyze the transaction mode (e.g., land coupon or land consolidation) used for each land. These transaction models are an important way to solve the problems of poor location and scattered distribution of rural land, and can be further explored when the data are available.

4.2. Conclusions

This study aimed to evaluate rural construction land marketization in China through detailed statistical analysis of a national dataset. A summary of CCCL transactions in 26 pilot areas from 2015 to 2020 was acquired to obtain an overview of CCCLM with regard to the number of cases, transaction areas, and values. Additionally, this study analyzed the market environment of CCCL in each pilot area by comparing the selection and operation of its implementation players, entry methods, and trading methods. Two conclusions were drawn based on our analysis.

First, the volume of transaction cases, the area of CCCL, the total transaction values, and the average price in CCCLM are obvious differences between the pilot areas. From 2015 to 2020, Wujin led in terms of the number and area of CCCL transactions, followed by Liuyang and Nanhai. The number of transactions completed in Dali was the lowest. The total value of traded CCCL in Nanhai was the highest, accounting for 42.22%, which shows that the development of the CCCLM in Nanhai is relatively active. Among all 26 pilot areas, Daxing has the highest price of CCCL, followed by Nanhai, and the former is four times higher than the latter. The price in Pingluo is the lowest, at less than 10 yuan per square meter. Overall, pilot areas in the east have a larger number of CCCL transactions and higher price; therefore, the CCCL market in the east is significantly better developed than that in the central and western regions.

Secondly, the pilot areas have imposed different transaction rules according to their economic conditions and reform practices, which has an impact on the transaction prices of CCCL. In terms of the implementation players, most pilot areas have chosen villagers’ self-governance organizations or mixed subjects. Economically developed pilot areas are more likely to choose collective economic organizations as implementation players, which corresponds to a higher price of CCCL than villagers’ self-governance organizations and mixed subjects. The price of commissioning agency organizations is about 27 times that of mixed subjects, although, of course, part of this significant difference stems from the extremely high price in Daxing. In terms of the entry methods, pilot areas mostly traded CCCL in the form of conveyance, and the value of CCCL can be better realized by transferring than by leasing, after removing data in Naihai. Similarly, in terms of
trading methods, 55.35% of CCCLM was traded through negotiations, which is the least marketable method and corresponds to the lowest price among all trading methods. Most pilot areas have a low degree of marketization, lying between 0.2 and 0.3, which indicates the imperfection of CCCLM.

The findings of the present study contribute to the understanding of the ongoing CCCLM in China through more convincing empirical evidence, given the unique dataset collected in this study. The results highlight the regional differences in CCCLM and thus point out the relevance of differentiated key points for developing CCCLM in various regions. This analysis, although preliminary, should inform policy makers in China and other countries that do not yet have an active and efficient rural land market operation system.

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