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## 40-year Reform of Farmland Institution in China: Target, Effort and the Future

*L. Biliang;*

*SCAU, College of Economics and Management, China*

*Corresponding author email: luobl@scau.edu.cn*

### **Abstract:**

*Purpose - Based on the brief historical review, this paper expounds the target and bottom line for the farmland institutional reform of in China, analyzes the “Chinese scenes” and historical heritage of farmland institutional arrangement, evaluates the policies and their effects over the last four decades and outlines the keynotes and possible direction of the future reform. Design/methodology/approach - Build the analytical clue of “institutional target - institutional heritage - policy effort - realistic dilemma—future direction” and review and forecast the Chinese farmland institutional reform. Findings - The farmland institutional is an important issue with Chinese characteristics. Over the last four decades, the farmland institutional reform in China has focused on “stabilizing the land property rights” and “promote the farmland transfer”. As the study indicates, the promotion of farmland transfer has not effectively improved the scale economy of agriculture and stabilizing land property rights by titling may restrain the development of farmland transfer market, because farmland transfer is of special market logic. Originality/value - It depends on the revitalization of farmland management rights to resolve the transaction constraint of personal property and its endowment effect in farmland transfer. And classifying the land management property to involve farmers into the economy of division can be reference for the reform of traditional agriculture worldwide.*

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**JEL Codes:** Q13, Q24

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**Findings** - The farmland institutional is an important issue with Chinese characteristics. Over the last four decades, the farmland institutional reform in China has focused on “stabilizing the land property rights” and “promote the farmland transfer”. As the study indicates, the promotion of farmland transfer has not effectively improved the scale economy of agriculture and stabilizing land property rights by titling may restrain the development of farmland transfer market, because farmland transfer is of special market logic.

**Originality/value** - It depends on the revitalization of farmland management rights to resolve the transaction constraint of personal property and its endowment effect in farmland transfer. And classifying the land management property to involve farmers into the economy of division can be reference for the reform of traditional agriculture worldwide.

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## **1. Introduction**

The issue of rural land, which is associated with the human basic demand, survival and safety, is a global issue. In view of the man-land relationship (the ratio of land to population), for the developing countries with a huge population, land is decisive in selecting the development paths. China is a large agricultural country in the world. Its achievement in rural reform is generally deemed as an example of success. The land institution is the core of land issue. The Chinese land institutional arrangement and its reforms are, without doubt, valuable international experience.

The China rural reform in past nearly seven decades, including the land reform, collective movement, collectivization of agriculture and household contracting system, has profoundly demonstrated the fundamental influence of rural basic management system on Chinese economy and society, especially on rural areas, agriculture and farmers. As the kernel of basic rural management system, the rural land institution has always been the main line of rural reform and development. Similarly, during the reform and opening over the past four decades, the farmland institutional reform (and agricultural management system) has always been the most frontier, active and contemporary, but also the important issue with the most Chinese characteristics.

Based on the brief historical review, this paper clarifies the target and bottom line of the farmland institutional reform in China, analyzes the “Chinese scenes” and historical heritage of farmland institutional arrangement, appraises the policy effort and its effect over the last four decades and outlines the keynotes and possible direction of the future reform.

## **2. Chinese Farmland Institution: Historical Background and Institutional Bottom Line**

### *2.1 Historical Background and Evolution of Institution*

The farmland institution arrangement in the early period of the People’s Republic of China was based on political requirement. China is a big country of farmers, and farmers live on farming, therefore land has always been deemed as lifeblood by the Chinese farmers. The severe contradiction between man and land determines that if someone can endow farmers with land property rights and then he can obtain the extensive political resources and social support (Luo, 2008). Therefore, for the Chinese revolution led by the Communist Party, it was an important strategy to “remove local tyrants and distribute farmland” and undertake the movement of land reform widely. The resulting privatization of land for farmers met the need of farmers for land as the function of benefit assurance, as well as ensured the need of political mobilization and organizing revolution.

Although the establishment of the People’s Republic of China ended the chaos of a century, the Chinese Communist Party led by Mao Zedong was facing a backward agricultural country with wounds of war and poverty. Hence, industrialization became the important national target. In order to accumulate the

original capital through the scissors difference between industrial and agricultural product prices, the government monopolized the acquisition of agricultural products through “unified purchase”. However, the low-price monopolized market may endanger the survival of farmers. Then, the collectivization of rural land was implemented, and farmers were endowed with membership so that their basic survival assurance was maintained. To ensure that farmers were engaged in agricultural production and sold the agricultural products at a low price, the government restricted the population migration by implementing the hukou registration institution. Finally, the unified purchase and marketing, people’s commune (and land collective ownership) and hukou registration institution became the three mutually-supporting institutional system for the state to obtain the agricultural surplus. This was a political need, but also the needs of economy.

Due to the low efficiency of agricultural production and shortage of food, especially to the replacement of core figures (death of Mao Zedong in 1976 and comeback of Deng Xiaoping in 1977) and to the revision of relevant ideology, the Household Responsibility System (HRS) was eventually implemented in the late 1970s and granted with political and legal assurance successively. China started to ease the overall control over rural economy for stable tax revenue, low-cost regulation and political support of farmers. In turn, farmers fulfilled their obligation for the state and undertook the management responsibility for the land use-right and residual claim (Lin, 1992; He and Luo, 2010). “Turn over enough to the state, reserve sufficiently for the collective and keep the surplus” became the new institutional arrangement, and China had made great achievement in agricultural growth. Therefore, the household contracting management of rural land became a worldwide reform with profound influence in agricultural development.

Essentially, the rural reform of China started in 1979 was a great adjustment of property relation and interest relation. The farmland institutional reform from household contracting responsibility to all-round contract and the reconstruction of rural micro organization determined the leading position of household management and actualized the separation between land ownership and management right and thus met the sense of farmers for the real rights and interests of land. Hence, farmers were in possession of the property disposal right and economic democratic right (including the occupation and identity conversion of farmers)<sup>①</sup>, and it could not be imagined having those rights during the period of the people’s commune. The incentive mechanism formed by the rural reform induced the improvement of the resource allocation efficiency, adjustment of agricultural structure and development of non-agriculture industry, thus triggering the rapid expansion of rural economic flow and energetically changing the original pattern and process of the national economy as well as supporting consecutively the occurrence of “Chinese economic miracles”.

## *2.2 Institutional Target and Institutional Baseline*

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<sup>①</sup> In the opinion of Cohen (1971), when social members are entitled to choose the economic targets they pursue and the economic means for achieving such targets, economic democracy exists.

The institutional target is decisive to the formation and implementation of institution. It should be mentioned that the institutional bonus and spillover resulted from the reform of HRS with the farmland institution as the kernel not only expressed the huge potential of institution innovation, but also encouraged further exploration of theory and practice. As for the agricultural management system in operation for four decades, the theoretical debate had never been stopped and different innovative experiments also emerged in an endless stream, but the basic pattern of the farmland institution has not been substantially changed, as is reflected as follows:

(1) *Maintain the institutional target.* Firstly, the farmland institution must be beneficial to safeguard the effective supply of agricultural products and ensure the grain safety and food safety. Secondly, the farmland institution should safeguard the economic interests of farmers and respect the democratic rights of farmers. Since the farmland contracting management system assured the supply safety of agricultural products in China as well as considered the interests of farmers and actualized the “compatible incentive” of micro entity management target and national macro policy target, it became the treasured experience of Chinese rural reform.

(2) *Insist on the institutional baseline.* Firstly, the farmland institution should always insist on the farmers’ collective ownership of rural land. Secondly, it should always stabilize the land contract relation and safeguard the land contracting right of farmers. Thirdly, it should always safeguard the basic position of agricultural household management. Fourthly, the farmland institution should always protect strictly the cultivated land and intensify the control of farmland uses.

Farmland institution includes farmland property institution and agricultural management system. Farmland property institution is the “core” and agricultural management system is the “periphery”. Therefore, China’s agricultural management system determined by the institutional target and institutional baseline is essentially characteristic for: we should insist on and implement farmers’ land collective ownership, stabilize and intensify the farmers’ land contracting right, ease and revitalize the land management right, and enhance and carry out the control right of land uses. Thus, the space for the farmland institution innovation is mainly concentrated on the property adjustment of management right and agricultural management system building. For this reason, the Third Plenary of the 18<sup>th</sup> Central Committee of the CPC in 2013 proposed to accelerate the construction of the new agricultural management system, i.e., we should insist on the basic position of household management as well as cultivate diversified management entities, improve the socialized service system of agriculture and advance the modernization of China’s agriculture by improving the institutional mechanism and optimizing the property allocation.

### **3. Two Major Institutional Heritages and their Succession**

In China, the institutional target and institution baseline followed by farmland institution are not only chosen due to institutional preference and realistic rationality, but also determined by the historical logic

accumulated over the years (Pierson, 2000). The property right structure established historically by the state played a critical role in the subsequent institutional reforms (North, 1981). The two major institutional heritages have played important roles:

### *3.1 Property Rights defining heritage: “equal distribution” of land and its lasting*

(1) *“Equal distribution” of land: the gene of institution.* Human history is a history of war for land. In the history of China, the turbulence in the late period of each dynasty was sourced from that farmers lost their land and then became refugees. The flourishing in the early period of each dynasty was accompanied with abundance and ease due to such political measures as “equal land”. Such modes of land allocation as “equal land” or “equal distribution” could mobilize the supporting strength of farmers to the maximum and thus became the political ideology generally accepted by the reformers in the ruling class or peasant risers.

In the peasant society with scarce farmland resources, the rational principle of farmers was “survival and safety”, rather than pursuing maximum income (Scott, 1976). In China, since farmland was not only the important means of production, but also the lifeblood for the survival of farmers, thus a tradition of special farming system is formed. Village was a face-to-face society composed of people living together with close relative, regional and business relationship. This society is featured for proper definition, exclusive protection of property, risk bearing and interest sharing. The equal distribution of land provided a mechanism of risk bearing and then became an important part of the rural social assurance system (Xie and Luo, 2010).

The institution gene of “equal distribution” of land was properly inherited in the modern times (Li and Luo, 2015). “Land to the tiller” during the period of the land revolution and war, the membership during the period of agricultural collectivization, and “equal contracting” of farmland under the household contracting system all have adequately reflected the “equal distribution” characteristic of village-level land. It should be mentioned that the change of the farmland institution was affected, to a great extent, by the changing number and structure of rural population. During the farmland institution reform 40 years ago, the land element was distributed equally between farmers and the subsequent farmland adjustment also followed the principle of equal distribution of land “as per household size”. Similarly, the contracting and management right of land was adjusted mostly to respond to the unequal distribution of elements after the man-land relation changed (Carter and Yao, 1999). “Equal distribution” reflected the nature of farmland for social welfare assurance and had a certain institution advantage. For instance, due to the farmland institution arrangement of “equal distribution”, the circumstance of the farmers in China was better than in India in terms of nutrition in-take, infant mortality rate and women literacy rate (Yao, 2000).

(2) *Adjustment and Alteration: implantation of new gene.* As mentioned above, due to such basic national conditions as severe contradiction between man and land, “land to the tiller” had always been the dream of the Chinese farmers. After P. R. China was founded, the Land Reform Law (1950) provided that

“China abolishes the feudal and exploitative land ownership of the landlord class and implements the land ownership of farmers”. Such transformation had two important features: one is that it inherited the traditional gene of land “equal distribution”, and the other is that the farmland was allocated, free of charge, to the farmers compulsorily by the state. Since the endowment of farmland was not generated by the market, but “created by the state”, it contained the property-weakening mechanism (Zhou, 2004) and thus foreshadowed further adjustment and alteration made by the state. The changes of the farmland institution since “New China” was founded, including the initial farmland privatization, the movement of land collectivization from the mutual-help group to primary commune and people’s commune, and general advancement of household contracting system nationwide, all resulted from the choice of the national will. This was asserted categorically by North (1981): as a monopoly organization with the violence potential, the state can surely create any form of property.

The initial endowment mode of farmland implanted the gene of “altering” as per national intention into the farmland institution. As for farmers, it meant that the farmland property rights can be adjustable. Firstly, due to their natural membership, farmers became the “quasi owner” of collective land. Such membership is characteristic for homogeneity and determined that every household was naturally entitled to the contracting management right, equally according to their size. Secondly, the efficiency target of land right stabilization always gives way to the equal target. When the man-land relation changed and when the change accumulated to a certain extent, it was necessary to meet the claim of farming households for “equality” by adjusting the farmland again and again. Thirdly, the village collective was the decision maker and organizer for the land right adjustment. Its power base resulted from the political power of the state formed during the period of the people’s commune. This complied with the legal interpretation of “collective ownership of rural land” and the “survival moral” principle of land assurance as well as reflected the path dependence characteristic of state-leading institutional changes.

The succession of traditional gene and implantation of new gene naturally brought about two significant realistic constraints:

*a. Institutional sequel.* Firstly, the initial “equal distribution” and subsequent “alteration” would continuously induce the formation of land adjustment force. Through the charge-free land endowment, the state power brought double effects on its penetration into village: on one hand, the rural stabilization was maintained by land reallocation; on the other hand, the village cadres as the state agents were seeking the rent in the land reallocation. The former would cultivate the force of ignoring law (Xiong, 2009), while the latter would cause the damage to the farmers’ land rights and interests. Secondly, the welfare endowment would naturally result in the community enclosure and market control. On the one hand, since the villages played an extremely important role in farmland protection and distribution, they expressed the high exclusiveness and community enclosure. On the other hand, since the land right allocation and land adjustment depended on the endowed identity rights, it caused a hidden hazard that constrained the development of farmland transfer market.



*b. Efficiency loss.* Due to the endless reallocation for fair property, the instability and decentralize became the inherent Endogenous institutional defect (Nguyen, 1996). Firstly, due to the frequent reallocation of land, farming households could not have the long-term expectation for land investment. Secondly, since every member had the equivalent right for the collective land, it means that due to the equivalent distribution of land in terms of quantity, quality and space, the lots contracted by farming households were dispersed and fragmented, resulting in the inability to take advantage of economies of scale. Thirdly, to ensure the equal distribution, each reallocation would require for checking the population, lot quantity and quality, and reaching an adjust solution commonly accepted by the community members. Thus, the definition cost of property alteration was high.

The integration of “equal distribution” and “alteration” genes would naturally lead to the small-scale, dispersed and segmented operation. In 1986, the average cultivated land for each farming household was 9.2 Chinese mus dispersed into 8.4 lots; in 2008, it dropped to 7.4 mus with 5.7 lots (He, 2009). In 2011, the total area of cultivated land in China was 1.277 billion Chinese mus and the farming households numbered to 228.8 million, with the average cultivated land of 5.58 Chinese mus only for each household (Rural Department of State Council Development Research Center, 2013). It may be considered that the agricultural household management in China almost had no economy of land scale.

### *3.2 Property rights organization heritage: agricultural household management and its debates*

The institutional matching compromising with the farmland property institutional heritage was the organizational arrangement of agricultural household management. Agricultural production is the activity of using other natural forces by using the structural natural force of life (China Rural Development Research Group, 1984). The information sent in the complex process of fitting into life with life not only has an extremely huge flow, but also is extremely irregular, determining the management entities must make sensitive reaction and flexible treatment according to the life rhythm and information instruction. Thus, the natural division contained in the household management and the inherent flexible decision-making mechanism, consciousness of behavioral response and incentive-compatibility self-enforcement mechanism, make household have natural rationality and unique organizational advantage in agricultural production activities.

However, due to the diseconomy of scale and difficulty in matching with the market, the agricultural household management is still observed with debates in two aspects:

(1) Based on production features, it is viewed that agricultural household management cannot inherently generate scale economy (He, 2009). The main bases are: firstly, due to the proper decision-making and flexible treatment requirement determined by the agricultural features, household management is unlikely to have a large scale. Secondly, due to the “adapt to local condition” and “dispersed” treatment required by the life process, household management would be naturally accompanied

with “small and comprehensive”. Thirdly, the rigid constraint for the household disposable labor force and the labor supervision and appraising cost implied in agricultural production also determined the limitation of operational scale. There may be more reasons, but the basic assessment is obtained that agriculture is not an industry with significant economy of scale and there is a natural contradiction between agricultural household management and economy of scale.

(2) Based on transaction features, it is viewed that agricultural household management can hardly generate the economy of division. The main bases are: firstly, due to the life characteristics resulting from agricultural production, the space for work division in agricultural product is extremely limited. The sensitive and flexible treatment required by the life rhythm cause the difficulty in “standard” work division of agricultural operation. Secondly, due to the roundabout production process in agriculture and far less use of intermediate products than industry, agriculture can hardly form the significant roundabout economic effect (Yang, 2003) and implies the high market transaction cost of elements and products. Thirdly, agriculture is not only deemed as one natural economy, but also as a passive sector requiring for the interference of exogenous factors (Schultz, 1964). Thus, the basic assessment is that agriculture with households as the major production organization mode remains mostly at the level of natural work division and can hardly match with the market, since there is an inherent contradiction between agricultural household management and market division.

Obviously, the foregoing debate seems to defend the rationality of household management, but it implies the criticism of low efficiency of household management. It is even considered that the property incentive contained in the household contracting and management system has already released completely (Lin, 1992; Li, 2013). Therefore, during the critical period of the agricultural transformation and development in China, it is extremely important to re-understand the nature of agricultural household management. How to insist on the main position of farming households in farmland property and how to insist on the basic position of household management in agriculture is not only an issue of economic system, but also an overall issue of social stability. It is a major noteworthy theoretical and realistic issue to integrate household management into agricultural modernization and give a play to its organizational comparative advantage and basic role.

## **4. Environmental Changes, Policy Effort and Dilemma**

### *4.1 Environmental Changes: element flow and international competition*

(1) *Factor mobility and agricultural “marginalization”*. Due to the historical institutional heritage and objective agricultural features and accompanied by the industrialization and urbanization and rapid flow of rural factors, China’s agricultural operation is being faced with a series of challenges:

*a. By-business of farming households*. As the data of National Statistical Bureau show, of the agricultural households nationwide, the by-farming households shared 37.19% in 1996, 60% in 1999, and 81.72% in 2012.

As the results of sampling survey on farming households in nine provinces and regions nationwide in 2015 (2704 sample farming households) indicate that the proportion of pure farming households was merely 8.54%<sup>①</sup>. It indicates that farmers no longer focus only on farming.

*b. Weakening of labor force.* As the data of Ministry of Agriculture show, of all the labor force employed, the proportion in the primary industry declined to 38.10% in 2011 and 31.4% in 2013. The labor force remaining in agriculture sector showed a sign of aging and feminization. According to the results of the sampling survey on 931 villages nationwide in 2011, the labor force aged above 51 shared 39.80% and the proportion of women was up to 69.89%. It indicates that farmers started to focus on other industries than agriculture.

*c. By-business of agriculture.* As the data of Ministry of Agriculture show, in the net income of farming households, the proportion from agriculture declined from 75.02% in 1985 to 26.61% in 2013. It indicates that farmers no longer focus on agriculture.

The above expresses jointly the continual “marginalization” of agriculture. It should be clearly noted that with the migration scale of rural labor force expanding continuously, the trend of “agricultural marginalization” will become increasingly serious. It means that the agricultural development will not only be faced with the problem of “who will grow in the field”, but also with such in-depth problems to be resolved as “what field to grow” and “how to grow”.

Great importance must be given to that if the quality of agricultural labor force, production capacity of farming households and agricultural operation scale are all below the bottom line required for the modern productivity level, the agriculture-based scientific and technological application, product quality, market access and farming enthusiasm will all be hardly maintained and agricultural modernization will become an unachievable desire (He, 2009). Therefore, it becomes a severe realistic challenge to advance the innovation of agricultural operation mode on the premise of insisting on the household management.

(2) *Weakness in International competition and comparative cost.* As compared with the agriculture of U.S., the unit area cost or unit yield cost of China’s major agricultural products is higher and some of them are even more than twice higher (Table I), indicating the worried international competitiveness of China’s agricultural products.

**Table I.** Cost Comparison of Major Agricultural Products between China and U.S. in 2014 (Unit: Yuan)

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<sup>①</sup> The data herein are sourced from (Luo et al, 2017). Additionally, this paper will mention frequently the data of farmer questionnaire survey in 9 provinces and regions in 2015. The data are sourced from the household survey conducted by the team of the author in 528 villages in Guangdong, Jiangsu, Liaoning (East), Henan, Jiangxi, Shanxi (Central), Ningxia, Sichuan, and Guizhou (West) during the spring festival of 2015. 2,880 copies of questionnaire were distributed, of which 2,704 copies were valid.

	Cost per hectare			Cost per 50kg Yield		
	China	US	China higher than US (%)	China	US	China higher than US (%)
Paddy	16174.05	15451.20	4.68	127.27	86.15	47.73
Wheat	14476.95	4780.65	202.82	110.53	96.32	14.75
Corn	15958.35	10452.60	52.67	103.86	48.98	112.05
Bean	10010.10	7216.05	38.72	228.21	112.24	103.32
Peanut	20150.85	15099.30	33.46	284.14	174.24	63.07
Cotton	34178.40	10806.15	216.29	953.70	703.06	35.65

Data Source: Ye (2016).

In China, although the grain yield had been growing continuously for 12 years, from 861.4 billion Chinese jins in 2003 to 1.2429 trillion Chinese jins in 2015, it has been also accompanied with the right rise of agricultural cost. During 1990-2014, the annual average growth of unit area yield for China's three grains (paddy, wheat and corn) was 13.6% in per present value, but the annual average growth of unit area cost was up to 15.5%. Meanwhile, the annual average growth of material and service cost was 12.2%, the annual average growth of manpower cost was 16.9%, and the annual average growth of land cost was 24.6% (Ye, 2016).

As a new trend, manpower cost already becomes a leading factor of high agricultural costing in China, while the land rental cost becomes a new factor of the increasing agricultural cost. In terms of cost structure, during 1990-2014, the proportion of the average material and service expense for three types of grains (paddy, wheat and corn) dropped from 58.3% to 39.1%, proportion of manpower cost increased from 35.1% to 41.8%, and the proportion of land cost rose sharply from 6.6% to 19.1% (Ye, 2016).

The high cost of agriculture is the direct reason leading to the marginalization of agriculture, and is also closely associated with the farmland institutional of "equal distribution". The small-scale, dispersed and segmented operational pattern become the important causes for the high cost of agriculture in China.

#### 4.2 Policy Effort and Dilemma

Due to the aforementioned reasons, for the reform of farmland institution over the last four decades, the effort has been made always in the direction of "stabilize land property" and "promote land transfer"

(Zhou, 2004; Feng et al, 2013). Faced with the dispersed and small-scale operation pattern, the national policy has always stressed on advancing the agricultural large-scale operation: on the one hand, national policy stresses on lowering the agricultural production cost and enhancing the production efficiency, by centralizing the farmland circulation and improving the operational economy of scale; on the other hand, national policy stresses on lowering the transaction cost and enhancing the organizational efficiency by organizing the agriculture and improving the dispersed operation pattern. From the “No.1 Document” (2005-2017) issued by the Central Committee of the CPC, we can clearly sort out the change track and policy guidance of the rural land and its management system in China (See Table II).

**Table II** “No.1 Document” (2005-2017): The Change Track and Policy Guidance of the Rural Land and its Management System

year	Stabilize Land Property Rights	Promote Land Transfer
2005	Conscientiously implement rural land contract policy and properly handle land contract disputes	legally develop Legally carry out land transfer and develop moderate scale operation based on farmer’s voluntary and providing reasonable compensation
2006	Protect farmers’ land contractual right and management right	Improve the land transfer mechanism and develop various forms of moderate scale operation in appropriate places
2007	Persist in the basic rural management system and stabilize land contractual relationship	Regulate land transfer and encourage appropriately contiguous planting in appropriate conditions
2008	Stabilize and improve the basic rural management system and stabilize the contractual relationship of rural land. Strictly implement the legal provisions of not adjusting land and forbidding to retract farmers’ contracted land during contractual period	Improve land rental market according to the principle voluntary and compensable legal principles, . Cultivate and develop the market environment allowing various moderate scale operation forms
2009	Endow farmers with more sufficient and guaranteed land contractual management rights, keep the existing land contract relationship stable and unchanged for long term, and promote land titling, registration and certification	Develop various forms of moderate scale operation. Develop large scale business entities such as leading specialized famers, family farms and farmers’ cooperatives in appropriate places
2010	Improve the rural land contractual laws and policies, keep the existing land contract relationship stable and long-term unchanged. Fully implement the policy which assures the four factors, contract land, area, contract, certificate to household be precisely endow to the households	Improve the land rental market, develop various forms of moderate scale management under the legalization voluntary and compensable legal principles, and improve the organization degree of agricultural production and management
2012	Speed up to revise and improve relevant laws and implement the policy of keeping the existing land contract relationship stable and long-term unchanged	Guide the transfer of land management rights, develop various forms of moderate scale operation, promote the innovation of agricultural production and management modes, cultivate and support the new social organization of agricultural service
2013	Keep the existing land contract relationship stable and long-term unchanged, improve relevant legal system and complete titling, registration and certification work of rural contracted management rights within 5 years	Guide land transfer orderly, encourage and support the contracted land transferring to leading specialized famers, family farms and farmers’ cooperatives and develop various forms of moderate scale management to solve the fragmentation problem of contracted land
2014	Endow farmers with more property rights. Stabilize farmers’ contractual rights, liberalize land management rights and allow land management rights to be mortgaged to financial institutions	Develop various forms of scale management, support and develop new agricultural business entities and improve the social system of agricultural service
2015	Persist in and improve the basic rural management system and persist in the main dominant position of farmers’ family	Innovate the modes of land transfer and scale management, actively develop various forms of moderate scale operation and improve the organizational degree of farmers

	management	
2016	Stabilize the contractual relationship of rural land, implement collective ownership, stabilize farmers' contractual rights, liberalize land management rights and improve the "Three Rights Separation" approach	Actively cultivate new agricultural business entities, guide farmers farming conjoint lots, encourage farmers to join the stock cooperative with land management rights. support professional scale service, such as helping to cultivate, tillage and cultivation collaborate and land trusts, etc.
2017	Implement "three rights division" approach of rural land collective ownership, farmers' contractual rights and land management rights. Accelerate the registration and certification of rural contracted land	Accelerate and develop various forms of scale management, such as modes like land-transferring and service-driven and so on.

(1) *Improve the economy of scale by promoting farmland transfer.* Farmland transfer concentration and large-scale operation are basic trend for the agricultural development in the world, for which Chinese government has made untiring efforts. The background support in two aspects is extremely important:

*a. Man-land dependence relationship is eased.* The severe man-land relationship in the early period determined the double function of land for farmers as means of production and social security. As discussed above, however, the reality is already changed materially in China. One is that the man-land relationship is significantly eased. Urbanization and development of non-agricultural industries supported continuously the migration of farmers for jobs and agriculture is no longer the leading part for most of the farmers. The other is that farmers' income structurally changed and thus their dependence on land is significantly lowered. The importance of land as the lifeblood of farmers is gradually declining.

*b. The land property of farming households is intensified.* One is to intensify the property entity position. In the form of law, the Rural Land Contract Law published in 2002 defines the entity position of farmers (farming households) for the land rights. The other is to intensify the stability of endowment. The third "No. 1 Document" of the central government in 1984 determined that the land contracted to farmers will remain unchanged for 15 years. The "No. 1 Document" in 1993 extended the contracting period to 30 years. Since the beginning of the 21<sup>st</sup> Century, the documents of the central government emphasized repeatedly to endowing farmers with more adequate and longer land contract management right and more land property rights.

Under the foregoing background, it becomes an important policy target to promote the farmland transfer. As early as in 1984, the "No. 1 Document" of the central government started to encourage the concentration of farmland to the skillful growers. In 2001, the central government issued a document vide No. 18, systematically proposing the circulation policy for land contract management right. Afterwards, a number of documents and policies intensified continuously the encouragement of farmland transfer.

However, as a realistic contrast, policy effort has been made for more than three decades, the dispersed operation pattern of land in China is not fundamentally changed. From Table III, it may be observed that the farming households with contracted land scale of less than 10 Chinese mus shared 76% of the total contracted farming households in 1996 and shared 85.74% in 2015; the farming households with contracted land scale of 10~30 Chinese mus shared 20.2% of the total farming households in 1996, and 10.32% only

in 2015. The small-farmer reproduction in farmland transfer indicates the consolidation of tendency of the small-farmer operation pattern in China's agriculture<sup>①</sup>.

**Table III.** Distribution of cultivated land scale of farming households

Operation Scale (in Chinese mu)	Proportion of farming households in 1996 (%)	Proportion of farming households in 2011 (%)	Proportion of farming households in 2015 (%)
< 10	76.00	86.00	85.74
10-30	20.20	10.70	10.32
30-50	2.30	2.30	2.60
> 50	1.50	1.00	1.33

Notes: the data of 1996 is from the farming household survey of the national rural stationed observation points; the data of 2011 and 2015 are from the National Rural Operation Management Statistical Data compiled by Economic Management Department, Ministry of Agriculture (2011 and 2015).

The positive significance of promoting farmland transfer cannot be denied. But it must be pointed out that it may be a slow process with relatively many constraints to resolve the scale problem caused by the farmland transfer. Hayami et al. (1993) once complained that the agricultural economic literatures have severely neglected the land market. We should be aware that in an agricultural country with tight man-land relationship, land not simply be treated as production factor, but endowed with identified, personalized and affective meanings, which result in a land transfer market based on “relationships” (Luo, 2016).

Not only failed to achieve its goals, farmland transfer policy also triggered problems like transfer disputes and contract instability. Based on the 2,704 farming household's questionnaire samples from 9 provinces or regions nationwide (Luo, 2017), results show that oral contracts and “empty contracts” (contracts without any terms) account for about 54.07% of all farmland transfer; in terms of the lease term, the proportion of lease with uncertain duration was up to 36.64%. Without doubt, incomplete contracts will easily trigger contract instability and opportunistic practice.

<sup>①</sup> In China, the farmland transfer rate shows a trend of increasing continuously (in 2016, the transfer area of household contracted cultivated land was 479 million Chinese mus, sharing 35.1% of the total household contracted cultivated land area. Zhang, 2017), but they were mostly the spontaneous transactions between farming household and were characteristic for obvious small scale, non-contracting and short term. As the data of 2,704 sample farming households of 9 provinces and regions in 2015 indicate, 71.37% of the farmland transfer occurred between small farmers.

(2) *Improve the property rights stability by advancing the farmland titling.* Faced with the foregoing dilemma, one general presupposition is that farmers are unwilling to rent out their land since they are afraid that their land rights and interests cannot be protected effectively (He, 2015). The ambiguously defined farmland property rights (Luo and Fu, 2009) will lead to the inaccurate expectations and trigger the opportunistic practice. Hence, farmland rights confirmation, i.e., the definition of farmland property, is extremely important (Besley, 1995). In 2009, China started a new round reform of farmland right confirmation. In 2013, the No. 1 Document of the central government proposed explicitly to carry out comprehensive rural land right registration and certification actions and complete in 5 years, that is by the end of 2018.

The first-round 15-year contract regulated by the government in 1984 and the second-round 30-year contract in 1997 can be both deemed as farmland titling, to ensure farmers with more stable property rights expectation. Differently, the new-round farmland titling has two significant features. One is to consolidate the identity of collective membership according to the principle of “no additional land for additional people and no reduction of land for reduction of people”. The other is to implement the “four boundaries” policy, i.e., to clarify the clear land boundary. These policies aim to endow farmers with stable and assured land property rights and encourage farmers to participate in farmland transfer. The above policies based on the mainstream theoretic property assumptions that market can automatically resolve transaction problems under the premises of clear and stable property rights (Alchian, 1965).

However, the previous studies show that the foregoing institution arrangement also cannot assure the accomplishment of the expected target.

*a. Is farmland right affirmation helpful to stabilize the land property rights or restrain from reallocation”?* Due to the Chinese traditional “equal land” ideology, farmland reallocation will not change fundamentally by land titling. The empirical studies show that the property consolidation and stability targets have not been responded generally by farming households. Based on the survey of farming households from Heilongjiang and other four provinces in 2016, Zheng and Gao (2017) indicates that farmland reallocation is universal: from year 2011 to 2016, about 16% of the farming households reallocated their lands, and 1.36 times in average. Further, 16.4% farming households oppose the policy which prevents land reallocation within the contract period; 39.3% farming households oppose this policy to be permanent. It means that when the second-round contracts (2028) reach expiration, farmers will strongly desire to reallocate lands. As the latest study of Hu et al. (2017) shows, the farming households who experienced “large-scale land reallocation” will lower the expectation of stability significantly for the new-round land titling.

*b. Can farmland titling automatically resolve the problems of land transfer?* In this regard, the previous researches have not yet achieved the unanimous opinion (Deininger & Jin, 2005). As the numerous studies on Vietnam (Do & Iyer, 2008), Ethiopia (Holden, et al, 2011), and Argentina (Galiani & Schargrinsky, 2011) indicate, land titling or registration cannot facilitate the land renting and transaction.



The empirical results of Hu and Luo (2016) show that farmland titling will increase rental thus it will enhance willingness of the land transfer but cannot the actual transfer activities. Based on the questionnaire of farming households in 9 provinces and regions in 2015, Luo (2016) indicates that among the farmland renting-out activities, the participation rate of farming households with land titling shows no significant difference comparing with those without land titling, but the proportion of the area of transferred farmland is sharply reduced and the rental is higher (increasing by 32.20%). When promoting the exclusive capacity of farming households' property, the farmland titling may aggravate the suppression of the management right transfer due to the excessively high rental threshold.

Attention must be given to the property meaning and transaction logics contained in the farmland characteristics. Based on endowment effect theory, Zhong and Luo (2013) states<sup>①</sup> that the farmland property shows a characteristic of strong personal property in China. Firstly, the contracted land of farming households is endowed due to their collective membership and is of strong identity characteristic and feature of personal property. Secondly, in the circumstance that the contracting right and management right are separated, as for any entity transferring in the management right, it can only be implemented upon obtaining the consent from the contracted farming households and thus, farming households are “property identity monopolized” for their lands. Thirdly, farmland titling will be naturally objective to each lot of particular land and the transfer of land management right will be reflected in the transfer of the particular lot use right and thus the particular lot contracted by farming households will naturally have the characteristic of “property geographic monopoly”. Therefore, the intensified property right of personal property may restrain the market-based transaction due to the endowment effect.

By analyzing the data from the questionnaire of the farming households in 9 provinces and regions, Luo (2016) proves: ① in any circumstance, the endowment effect (WTA/WTP) of farming households on farmland is higher than 1; ② the endowment effect of farming households with land titling is obviously higher than those without land titling; ③ the scarcity of the land contracted by farming households, the self-sufficient production and the oldness of farming persons all cause stronger endowment effect; ④ farming households are generally concerned about the issue of reign control in farmland transfer<sup>②</sup>. Among the sample farming households, those “relative concerned” households shared 61.88%, with the endowment effect up to 2.5081. Even for households who reply, “not much concerned”, their endowment effect is also up to 1.5702.

Obviously, farmland titling restrains the farmland transfer because of aggravating the land endowment

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<sup>①</sup> Its basic definition is: as compared with the Willingness to Pay (WTP) for one article, the Willingness to Accept (WTA) for personal transfer of such article is generally much more (Thaler, 1980). Endowment effect is considered as “one of the most steady phenomena emerging the field of behavioral economics” (Boven et al, 2003).

<sup>②</sup> For the purpose hereof, “reign control right” means whether the farming households pay attention to or care about how to use the land upon being transferred.

effect. It may be viewed that the personal property rights transaction of farmland is different from the property rights transaction in a general sense, indicating the special market logic of farmland transfer.

## **5. Future Reform Direction: endowment and enhancing capacity & opening and revitalizing**

### *5.1 Endowment and enhancing capacity: endow farmers with stable and more property rights*

Economics of Property Rights identifies two important concepts: property rights endowment and property rights implementation. The Clear endowment is important, but it is also important for the property entities to have the behavioral capacity to exercise their property right. Alchian (1965) pointed out that the strength of property rights is measured by the possibility and cost of its implementation, which in turn depends on the government, irregular social action and general moral and ethical standard. It could be viewed that the property rights intensity determines the property rights implementation and is the function of the national legal endowment under the agency of the government, social identification (or social norm) and behavioral capacity of property rights entities. Therefore, it can be started from different dimensions to improve the property intensity and stability of farmland and endow farmers with more property rights.

(1) *Improve the stability and operability of legal endowment.* The initial endowment of properties is often undertaken by the state through legislation. The legal property right of land formed thereof is not the sufficient condition of the property rights in an economic sense, but the former can intensify the latter. The prevailing legal endowment of rural land in China has two significant defects. One is the discrimination. In the acquisition of different kinds of properties, rural land shares the highest part. The other is uncertainty. In the huge number of land disputes in China's rural society, people cite different policies and regulations to state the validity (Zhang, 2003). It is mainly due to the uncertainty of the land use rules which is caused by the uncertainty of the law.

As for the farmland institution, firstly it is necessary to intensify the exclusiveness and operability of land property right to promote the authentication of law. During the discussion on the farmland property right in China, stressing on "goods" rather than "rights" is a long-run propensity. For instance, when discussing the land issue, more attention is given to who owns the land, but the rights to which the landholders are entitled are ignored (Liu and Lu, 2017). This may be closely associated with the specialty of China's land institution. Under the institution of private rights, neither the continental law nor Anglo-American law traditions will cause any puzzle with respect to the definition of ownership and right connotation, for the owners are the holders and disposers of all the land rights. In China, the actual status of farmland property right structure is the separation of ownership and use right. On the premises of protecting the collective ownership, the law should endow the use right with the operable right of the actual economic meaning, i.e., endow farming households with the farmland use right, income right, and transfer right.

(2) *Intensify the social awareness of respecting the farmland property right.* With respect to the rights of owning personal belongings, the written legal provisions and the actual implementing rules are not

always consistent. Without appropriate social acknowledgment and moral restraint, the implementation of statutory rights will be much abated. To improve the social acknowledgement and respect of property implementation, the market transaction of properties appears to be exceptionally important. Since the property exchanged through the market has the legality of regular procedures, rationality of social acknowledgement and behavioral nature of voluntary participation, it can enhance the property intensity. Therefore, farmland transfer and farmers' right and interest protection are of mutual dependence. The non-exchangeable endowment is unpractical, endowment and transaction not identified are tortious, while transactions without endowment are definitely low-efficient (rent dissipation).

### *(3) Advance the propertization, capitalization, and commercialization of farmland property rights*

The development of farmland property market depends on the condition that farmers begin less taking land as welfare function. Previous studies show that farmers' withdrawal from farmland transfer and management right is not simply an issue of welfare security and alternative functions, but expresses farmers' claim for land property rights (Luo et al, 2013). Thus, if the household contracting system simply aim to meet the fairness orientation based on the security function of land, the low-efficient agricultural operating pattern will not be changed fundamentally. Without doubt, the rural reform over the last four decades has made two important achievements, the continual growth of farmers' income and the rapid promotion of marketization level. But, as for the former, in farmers' income source composition, the property income is always the lowest. As for the latter, during the development of factor market, farmland market has severely lagged. Therefore, it is an inevitable choice to endow farmers with more property rights and advance the propertization, capitalization and commercialization of land, in terms of narrowing the urban-rural gap from the perspective of fairness as well as increasing farmers' income from the perspective of efficiency. Through legal approaches like the Property Law, land propertization is to assure farmers obtain the residual claimant right in such ways as farmland lease, participating, mortgage, self-operation or custody to increase income from the ownership of property. Taking land contract management right as financing instrument, land capitalization combine, the liquidity of land, profit-pursuing of capital and exclusiveness of properties with the income. Land commercialization is to realize, with the market price mechanism, the exchangeability of land management right, increase the scope, frequency and efficiency of land exchange, give play to the comparative advantages of different operation entities, and achieve the agricultural safety target of "the weak leave, the strong farm and the capable grow grains".

## **5.2 Opening and revitalizing: encourage the agricultural diversified operation and the economy of division**

Under the background of farmland "ownership, contract right and management right" separation, since the collective ownership cannot be changed, and contracted rights of peasant households must be kept stable for long run, the key of agricultural operation mode innovation is to revitalize the farmland management right.

*(1) Revitalize the management right: from three-right division to further classification of property right.* Due to the division of ownership, contracting right and management right, the transfer of farmland management right becomes possible (Chen, 2014). The problem is that since the farmland management right always depends on the farming households' land contracting right, it is determined that the transfer of the management right is always a kind of "periodical" property rights exchange, implying the transaction cost.

In many circumstances, it may be difficult for the property rights exchange. Fortunately, the valuable attribute of goods or properties is not unitary, but multi-dimensional (Luo, 2013), and there are various methods to segment, dispose and exchange the property rights (Zhang and Cheng, 2012). More importantly, the classification and revitalization of farmland management right can resolve the transaction constraints of personalized property and endowment effect during farmland transfer (Luo, 2016). For instance, the production management right can be divided into management decision-making right (what to produce and how many to produce) and production decision-making right (how to produce). While assuring the reign control right of farming households, most of the agricultural activities in the household management can be separated. For instance, the paddy seedling can be provided by the professional service organization; such production links as soil preparation, transplanting, pest prevention and control and harvesting can also be outsourced to the professional service organization. Therefore, the classification of management right provides the possible space for different entities to access agriculture.

*(2) Farming households' household management: from unitary to diversity.* The further subdivision of farmland management right will naturally induce household management from integration into open economy and economy of division. Assuming the farming households are heterogeneous, the division of household management will turn from the independent enclosure status to the open and diversified pattern:

Firstly, under the background of household contracting system, the large-scale operation of farmland will definitely depend on the transfer of farmland management right. As for the farming households, only those with the comparative operational capacity advantage can participate in the large-scale operation of farmland. The differential production and management capacity of farming households and the division are the preconditions for farmland transfer and large-scale operation.

Secondly, with the operation scale expanding, if all the agricultural activities are handled by one household management entity, the complexity and diversity of on-the-spot handling will exceed the behavioral capacity of the farming household. In the short term, the seasonality of agricultural manpower (peak season and slack season) certainly will trigger the structural contradiction of surplus and inadequacy. In medium and long term, the change of household population and labor force will also naturally lead to the structural problem of labor demand and supply. Therefore, with the farmland operation scale expanding, the structural contradiction will endogenously generate the development of farming households' employment management and agricultural labor factor market.

Thirdly, due to the agricultural operational features, hiring labors implies the high transaction cost. On

the one hand, the non-agricultural migration of massive agricultural labor force will cause the continuously increase of employment cost and aggravate the uncertainty of the agricultural employment. On the other hand, the life rhythm characteristic of agriculture will result in difficulty of supervising the work quality and high endogenous examination cost. Therefore, with the farmland operation scale expanding, it will be a proper choice for improvement of factor matching efficiency to substitute labor with machinery.

Fourthly, due to the relatively low using frequency resulting from the long periodicity of agriculture and heterogeneity of production links, investment in farming machinery and equipment as the specific assets will naturally result in investment locking and settlement cost. Therefore, when the family farms are not yet up to the adequate scale level, farming households will prefer to involve the production activities with relatively high special assets in the division system, i.e., reduce the production expenses and improve the operation efficiency by purchasing the production service instead of farming machinery and equipment.

Fifthly, if the service demand of farming households is limited, it is impossible to induce the professional service supply (market capacity constrains the work division); when the outsourcing service demand of several farming households is up to a certain scale, the entities with comparative advantages may become the professional service entities (market capacity promotes the work division); when the professional service has the comparative cost advantage, it is possible to induce the expansion of farming households' outsourcing service demand (work division in turn increases the market capacity). Therefore, farming households' production and operation capacity and management cost are the decisive factors for the land operation scale, while the transaction capacity and cost of farming households are the decisive factors for the operation scale of service.

(3) *From the economy of land scale to economy of service scale.* Farming households' production and operation are involved in the external work division and expansion of social division network to improve the agricultural economy of work division and scale significantly (Yang and Zhao, 2003). With the evolution of marketization and professionalized work division, the transaction efficiency of agricultural production service will be higher than that of land management right, and farming households will substitute the large-scale operation of land with the large-scale operation of service. Therefore, it is an important path for the transformation of operation mode and development of agriculture to turn from large-scale operation of land to large-scale operation of service.

In the sense of potential institutional evolution, the subdivision of farmland management right and farming activities are beneficial to develop the diversified agency market and outsourcing service market respectively. Therefore, once there exists the possibilities of subdividing the small farmers' farmland management right, the profit-earning opportunity thereof can be discovered by the entrepreneurs. On the one hand, it forms the operational entities providing such intermediate products (service) as "management knowledge" and improves the agricultural knowledge division and operation efficiency. On the other hand, it forms the productive entities providing "specialization production" as intermediate products (service) and can improve agricultural technical division and roundabout production efficiency. Therefore, even if

farming households do not use new factors directly for production, when the enterprises with the entrepreneur capacity provide services to farming households, farming households will apply the new factors and new technologies to operation activities, in the roundabout mode of buying productive services, for rebuilding the traditional agriculture.

## **6. Conclusions and Discussion**

It cannot be ignored that the historical tradition of China's "equal land institution", especially in the circumstance that farmland still undertakes the function of social security, determined that the reform of China's farmland institution has always included the genes of "equality" and "reallocation". Due to the equal land endowment and from which the property personalization of farmers results, the effort of the state to intensify continually the land right stability and advance the farmland transfer has not achieved some satisfactory results. For this reason, during the farmland institutional reform in China over the last four decades, disregarding whatever twists and turns experienced, collective ownership of land, farming households' household contract and the accompanied small-scale and dispersed agricultural operation pattern has not fundamentally changed, and has triggered various problems. Therefore, attention must be given to the farmland characteristics under the Chinese circumstances and property meaning and institutional logistics contained in the man-land relationships.

In a vertical view of this paper, it may be considered that China's farmland institutional reform includes three important keynotes:

### *6.1 Turning from the property ownership-focused system to the rights-focused system*

Looked through the changing process of farmland and operation systems in China, three clear evolutionary paths can be found: firstly, the people's commune's integration of ownership and management right changed to the household management system's separation of ownership and contract management right, and further from the ownership-focused endowment system to the property-focused system. Secondly, the integration of contracting right and management right in the early period of reform changed to the separation of contracting right and management right after the factor flow and man-land relationship was eased, and further the operation system focusing on assuring farming households' management right changed to institutional system focusing on stabilizing the farmers' contracting right. Thirdly, the small, comprehensive and dispersed small-farmer economy changed to the appropriate scale and improvement of scale economy and economy of division by advancing the agricultural specialization operation, and further to the diversified entities and new agricultural operation system in various styles and forms based on stabilizing the household contract right, classification and revitalization of the management right. Therefore, "collective ownership, farming households' contract, property subdivision, diversified operation diversified and usage control" will gradually become the basic arrangement of farmland institution in China.

### *6.2 Turning from the “welfare assurance” land endowment system to “property rights” system*

The “withdrawal” of farmland management right is not simply an issue of welfare assurance and substitution functions. “People move, but land remains” (the non-agricultural migration of agricultural labor force is ahead of the farmland transfer significantly) expresses substantially the claim of farmers for land property rights. If the household contracting system meets merely the farmers’ orientation for the assurance function of land, the small-scale, dispersed and segmented agricultural operation pattern will not change fundamentally. Therefore, it is necessary to advance the functional transformation of land and content transformation of endowment. The basic orientation is: (a) on the premises of maintaining the land contract relationship stability and will not change in the long run, endow farmers with more adequate and longer land contracting right and property right; (b) advance the capitalization of land, and promote the property income increase of farmers; (c) revitalize farmers’ land management right, and build and develop the property transfer market of farmland.

### *6.3 Involve the household management into the economy of work division*

Under the background of three-right division, revitalizing the farmland management right by subdividing the property rights cannot only resolve the land transaction constraint caused by personalized property rights and its endowment effect, but also can involve agricultural household management into a more open and specialized economy, and improve the agricultural service scale economy while promoting the farmland large-scale operation. It can be considered that by transforming the farmland circulation into matching the farming households’ land management right transaction under the pattern of classified properties, entrepreneur capacity transaction and agricultural productive service transaction, it not only can resolve the realistic difficulty of “who farms and how to farm”, but also can increase the potential profit margin for farming households to share the economy of service scale and economy of work division.

Finally, it should be emphasized that it is not a problem for China’s agriculture only, but also for the subsistence agriculture globally to advance the transformation of agricultural operation mode and accelerate the establishment of a new agricultural operation system. The foregoing paths of farmland institutional reform and property rights operation mode may be an important breakthrough to resolve the transformation of agricultural operation mode in China and show the important direction for innovation of China’s agricultural operation system and mechanism. Its reform logics have not only enriched the rural reform practice in China, but also can provide “Chinese experiences” for the reform of traditional agriculture worldwide and have the profound and extensive significance.

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