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# Development Stage and Evolution Cause of European Union Agriculture and Suggestions for Chinese Agricultural Development

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**Abstract** Agriculture is a basic industry related to national economy and people's livelihood, and is also the cornerstone of national economic development. European Union (EU) is the second largest exporter of agricultural products in the world, and its agricultural production change has international influence. In this paper, starting from two angles of EU agricultural development scale and target, development stage of its agricultural production is explored, and development and evolution causes of EU agriculture are analyzed; efficiency and benefit targets cause change of EU agricultural management model; change of agricultural product supply – demand pattern leads the evolution of EU agricultural development idea; the reflection of agricultural development target impels the transformation of EU agricultural development. On this basis, the below conclusions are obtained: agricultural development could evolve according to the changes of economic and social conditions; it is a necessary requirement of promoting internal market stability and international market harmony to actively use agricultural support policies adapting to agricultural development at each stage; it is an important measurement of impelling agricultural modernization process to promote innovation of agricultural management model and development of market integration; it is an inevitable road of realizing sustainable development of agriculture to develop ecological agriculture and emphasize equal development of agriculture and countryside. On this basis, it could provide the reference for agricultural development of China based on EU agricultural development experience.

**Key words** EU agriculture, Agricultural subsidy policy, Agricultural development stage, Suggestions

## 1 Introduction

Agriculture is a basic industry related to national economy and people's livelihood, and is also the cornerstone of national economic development. EU is the biggest regional economy subject in the world, and its agricultural development had a series of major changes in the past 50 years. Agriculture is a basic industry of EU, and its multiple functionality especially the contribution to national economy of EU member states provides not only essential production factors (land, labor force and fund) for EU economy development but also abundant agricultural products for countrymen, and guarantees normal reproduction of urban residents and the sustained development of the national economy<sup>[1]</sup>. In addition, agricultural environmental value is more and more identified by people, and EU more and more values the important effect of using agricultural resources to promote the balance of ecosystem. Therefore, EU proposes agricultural development idea of sustainable development, namely ecological agriculture, that is to say, eco-environment and agricultural production coexist. Under the background of contemporary economy, fast development of EU agriculture not only impels the development of related industry but also lays good basis for the processing, storage and transportation of agricultural products. The existing researches on EU agriculture are basically carried out by the view angle of agricultural subsidy policy<sup>[2]</sup>. By analyzing targets, characteristics and implementation measures of subsidy policies at different agricultural development stages, the influences brought by agricultural subsidy policies at

each stage are measured. In this paper, based on the related literature of EU agricultural development, starting from exploring development stage of EU agricultural production, development and evolution causes of EU agriculture are analyzed, which is the enrichment and expansion of EU agricultural research results in policy direction.

## 2 Development stage of EU agricultural production

### 2.1 The "two-stage" theory

**2.1.1** Before the 1950s—small-scale single farm management manner dominated by family management. Before the 1950s, peasant households of EU member states mainly managed their own land. In this period, agricultural development was very slow, and agricultural productivity level was lower, and production shortage of agricultural products could not guarantee the most basic self-sufficiency. Because that single small-scale farm was dominant in agricultural economy in the period, it restricted important contribution brought by agricultural large-scale development and the transfer of rural labor force to the secondary industry and the service sector. Hence, this kind of management manner caused the consumption of production factors, such as land and labor force. In addition, single small-scale farm had weaker power in the competition of market economy, which was difficult to participate in fair market competition. The understanding on market information by single farm was lagged, which caused that farmers were very difficult to timely respond to market condition, and it was an important for unstable farmers' income. Based on the above reasons, EU member states started to rethink the reform of agricultural management organization manner and scale to adapt to and

impel the development of national economy in each country<sup>[3]</sup>.

**2.1.2** After the 1950s—large-scale management manner dominated by farm and agricultural cooperative. Because that small-scale single farm restricted scale economy of agricultural development, EU member states started to value management scale and organization degree of agricultural production since the 1950s, and hoped to bring separate farms together by establishing agricultural cooperative to improve scale and industrialization of agricultural production. Here, important contribution of EU agricultural cooperative to agricultural economy of each member state is discussed from two aspects. First, standardized market operation and management. EU agricultural cooperatives play strong advantages in the aspects of agricultural products processing and marketing, and bring farmers together in agricultural production field, thereby providing service for farmers at the aspects of agricultural product production, processing, sale and agricultural fund support. Second, market share of agricultural products. EU agricultural cooperatives bring agricultural products of farmers together, and sell and export agricultural products to home and abroad in large trading market by the identity of a large supplier, which greatly improves market share of agricultural products and gives farmers price control and production ability of agricultural products to a certain degree. Table 1 illustrates EU agricultural cooperative's contribution to its member state's agricultural economy<sup>[4]</sup>.

## 2.2 The "five-stage" theory

**2.2.1** The stage of impelling agricultural production and improving self-sufficiency rate of agricultural products. During the world war II, domestic food supply in each EU member state was relatively tense. Due to the impact of war, marine transportation was stopped, and important transportation channel of agricultural prod-

ucts import and export was blocked, which forced each government taking the measures of improving self-sufficiency rate of agricultural products in the popularization of agricultural science and technology application. To the 1970s, EU agricultural output reached self-sufficiency. Seen from Table 2, import and export of main agricultural products and total production amount increased significantly in EU member states during the 1960s – 1970s. Taking 1962 as base period, average annual growth rates of import volume, export volume and total output of fruits and vegetables were respectively 5.38%, 3.37%, and 1.51%; average annual growth rates of import volume, export volume and total output of meat were respectively 5.36%, 6.08%, and 1.76%; average annual growth rates of import volume, export volume and total output of grain were respectively 2.20%, 12.85%, and 4.09%.

**Table 1** Market shares of main agricultural products in agricultural cooperatives of major EU countries Unit: %

Country	Fruits and vegetables	Meat	Grain
France	35 – 50	27 – 28	75
Ireland	–	30 – 70	69
Italy	41	10 – 15	15
Luxembourg	–	25 – 30	70
Holland	70 – 96	35	60
Finland	–	68	75
Sweden	60	79 – 81	20
England	35 – 40	20	–
Belgium	70 – 90	20 – 30	87
Denmark	20 – 25	66 – 93	–
Germany	60	30	49
Greece	12 – 25	5 – 30	20
Spain	15 – 40	20	–

**Table 2** Import and export volumes of main agricultural products in EU in the 1960s – 1970s Unit: ×10<sup>3</sup> t

Year	Fruits and vegetables			Meat			Grain		
	Import volume	Export volume	Total production amount	Import volume	Export volume	Total production amount	Import volume	Export volume	Total production amount
1962	23062	16559	309487	20050	12543	158542	40586	8805	–
1963	23758	15808	335208	22186	12714	158320	37652	11733	–
1964	24600	18162	345960	25531	13221	159820	39290	13560	145424
1965	26191	18624	325548	25883	15367	165969	43496	15396	152606
1966	27538	18164	343557	26069	18604	170588	44791	16143	151247
1967	27650	18550	360618	27355	19681	175227	42294	18152	168473
1968	28496	19536	362727	31210	22821	180156	41380	20214	170920
1969	31407	20415	339294	32948	22035	179950	41913	23921	172748
1970	33399	22392	355548	31477	23288	180457	46846	23275	162393
1971	33745	22222	344852	31129	25040	181792	50215	22300	191327
1972	37165	27622	355381	33244	25683	188574	49557	28109	196957

Note: Data were from FAO.

**2.2.2** The stage of overproduction caused by quick agricultural development after the world war II. After the world war II, to effectively stimulate agricultural production of EU member states, many states took vigorously propagating agricultural technology as the first task of ministry of agriculture in the state, and appointed some agricultural experts providing consultation service of agricul-

tural production to farmers. In addition, the other important measure stimulating production taken by EU member states was implementing higher price protection and export subsidies on most of agricultural products, making that EU's budgetary expenditure at agricultural aspect greatly increased. These above measures made that EU agriculture after the world war II fast developed, and

caused overproduction of agricultural products to a certain degree.

**2.2.3** The stage of solving overproduction problem by transforming subsidy model. Because that EU carried out excessive price support policy and strict high tariff of international trade in agricultural products, long-term agricultural products import protection and export subsidy measures impelled that international agricultural product's price declined<sup>[5]</sup>, and induced that other export countries of agricultural product were dissatisfied, and further caused frequent occurrence of agricultural products trade dispute in international market. Meanwhile, agricultural subsidy expenditure expansion caused that financial pressure of EU member state was larger

and larger, and high domestic agricultural product price in EU member states made that consumers could not afford. It could solve overproduction problem of agricultural products caused by excessive price support to a certain degree, and also eased international trade dispute and consumer dissatisfaction. Seen from Table 3, since EU reformed agricultural subsidy manner in 1992, total amount of domestic agricultural support, green box and blue box support total amounts all showed decreasing trend, which echoed the requirements of other agricultural product exporters, economic organizations and consumers<sup>[6]</sup>.

**Table 3** Domestic support structure of EU agriculture<sup>[7]</sup>

Unit: 10<sup>6</sup> dollars

Year	Green box support	Blue box support	Gross domestic support
1995	24188.5	26859.0	116537.7
1996	26597.7	25847.6	114606.1
1997	20474.9	23040.1	100698.2
1998	20958.3	22418.5	94834.3
1999	19830.9	19693.1	87476.6

**2.2.4** The stage of valuing agricultural ecological development target. Agricultural development was the second pillar of EU common agricultural policy. With the development of international political and economic forms, environmental destruction and good safety problems were prominent increasingly, which was more and more concerned by each country. To solve the problem, EU reached the agenda of 2000 in "Berlin Summit" on March 25, 1999. Two cores of the agenda were respectively as below. Firstly, further impel agricultural subsidy manner transforming from price support to direct income subsidy; secondly, develop ecological agriculture and take sustainable development road of eco-environment and production coexisting. After EU proposed valuing agricultural ecological development target, a lot of active impacts on agricultural development occurred. Firstly, farmers' environmental consciousness was greatly improved, and it was because that agricultural ecological subsidy of farmers issued by government had positive correlation with farmers' investment on environmental protection<sup>[8]</sup>. The measure promoted farmers to consciously take environmental protection through the whole process of agricultural production. Secondly, the quality of agricultural products was guaranteed. Under the rural development idea of eco-environment and agricultural production coexisting, farmers decreased the utilization of chemical fertilizer and pesticide, which declined environmental pollution by chemical fertilizer and pesticide to a large extent, decreased pesticide's residual quantity in agricultural products, and guaranteed food safety<sup>[9]</sup>.

**2.2.5** The stage of transforming from product support to production support. On June 26, 2003, EU Council carried out fundamental reform of agricultural subsidy policy, and main content was transforming the offering basis of agricultural subsidy from the past production basis to current farmer income, and considering environmental protection and product quality in agricultural production process, thereby completing initial change of agricultural subsidy from product support to production support<sup>[10]</sup>. In addition, world grain price quickly increased during 2007 – 2008 (price indexes of

main agricultural products in the world during 2001 – 2014 were shown as Table 4), which induced people's worries. For the problem, main measures taken by EU member states contained two aspects. First, supply of agricultural products. Fallow policy proposed by EU in 2000 agendum was adjusted. Under current economic situation, it was decided releasing agricultural productivity and pausing fallow for one year to increase supply amount of agricultural products, thereby easing the situation of agricultural products' price rising. Second, agricultural subsidy. EU's huge agricultural subsidy was one of main causes for inflation and soaring price of agricultural products. Therefore, EU decided to further decrease price support and use market to adjust. Therefore, EU agricultural development changed from initial farmer income increase and ensuring market stability to current seeking ecological agriculture, and it was an inevitable road of guaranteeing common sustainable development of eco-environment and agricultural production.

### 3 Cause analysis of EU agricultural development and revolution

#### 3.1 Efficiency and benefit targets causing change of EU agricultural management model

**3.1.1** Small-scale management model restricting the improvement of market competition ability and production management benefit. Because that small-scale single farm has smaller land scale, the scattered land scale restricts the realization of agriculture intensification and industrialization. Small-scale single farm is deficient in manpower, material resources, and financial resources, and it could not undertake investment pressure of basic agricultural production facilities, such as the advanced agricultural machinery equipment and water conservancy. Secondly, although small-scale management has very high per unit area yield, the production of agricultural products has already been in scale return diminishing. Therefore, small-scale management limits scale economic utility of EU agricultural production factors, and further restricts the improvement of EU agricultural production and management benefit.

**Table 4 Price index of leading food in the world during 2001 –2014**

Year	Food price index	Meat	Grain	Meat	Vegetable oil	Sugar
2001	94.6	100.1	86.8	105.5	67.2	122.6
2002	89.6	89.9	93.7	80.9	87.4	97.8
2003	97.7	95.9	99.2	95.6	100.6	100.6
2004	112.7	111.0	107.1	123.5	111.9	101.7
2005	118.0	114.2	101.3	135.2	102.7	140.3
2006	127.2	120.9	118.9	129.7	112.7	209.6
2007	161.4	130.8	163.4	219.1	172.0	143.0
2008	201.4	160.7	232.1	223.1	227.1	181.6
2009	160.3	141.3	170.2	148.6	152.8	257.3
2010	188.0	158.3	179.2	206.6	197.4	302.0
2011	229.2	183.3	240.9	229.5	254.5	368.9
2012	213.3	182.0	236.1	193.6	223.9	305.7
2013	209.8	184.1	219.3	242.7	193.0	251.0
2014	201.8	198.3	191.9	224.1	181.1	241.2

Note: Data were from <http://www.fao.org/worldfoodsituation/FoodPricesIndex/zh/>.

**3.1.2** Single farm difficult to undertake the impact of market risk. Single farm has difficulty not only at promotion and application aspect of agricultural science and technology but also fund introduction. In management model of single farm, agricultural support fund is not easy to be managed concentratedly, and total yield of agricultural products is easy to be affected by climate and natural disasters. This kind of high risk makes that investment return rate of agricultural support fund under small-scale management model is difficult to be guaranteed, which further aggravates the dilemma that single farmer could not defense market risk. Secondly, agricultural production subject of single-scale management is dispersed. These farmers are weak, have weak material technology basis, and are difficult to defense market risk.

**3.1.3** Not informed market information of single farm, and it being difficult to timely respond to market condition. In small-scale single farm, due to the limitation of self knowledge level, farmers lack understanding on market development of agricultural products. Under general situation, because that there is not labor division and cooperation relationship among farmers, and farmers basically depend on the past experience to carry out agricultural production activity, they are more arbitrary at production type, production process and circulation of agricultural products, and it is not run according to the unified and normative big market rule, making that whole agricultural production lacks the unified market regulation. Meanwhile, single farm is very difficult to scientifically predict the changes of market condition and price information, which is one of causes for blind production.

**3.1.4** Single farm deficient in processing, storage and sale sides, thereby making seasonal sale suffer huge loss. Under production and management manners of small-scale single farm, due to dispersed farmer management, a complete industrial system is difficult to be formed in agricultural production process, causing lower industrialization degree of agricultural product production. Secondly, processing, storage and sale of agricultural products also face many difficulties. Agricultural products of single farm lack deep processing and fine finishing, causing lower added value. Therefore, the increase of agricultural product yield does not bring

more profits to farmers, in the terms of farmers' own benefits, they are not willing to spend more human, material and financial resources on agricultural production.

**3.1.5** Large-scale management model concentrating agricultural products to improve market share of agricultural products. EU agricultural cooperatives integrate the dispersed farmers at the aspects of agricultural production field and agricultural production material supply. Meanwhile, agricultural products of each member state are concentrated in unified and standardized big market to sell in domestic market and export in foreign market via the bidding manner, and sale range of agricultural products and agricultural development space are enlarged, which promotes farmer's ability in production adjustment aspect of agricultural products to a certain extent. Secondly, EU agricultural cooperatives also establish long-term stable cooperation relationship with some large-scale wholesalers and farmers' organizations, which greatly improves market share of agricultural products and also guarantees increase in farmers' income.

**3.1.6** Large-scale management manner conducive to declining market monopoly degree, and promoting specialization and intensive production of agricultural products. EU's large-scale management dominated by agricultural cooperatives forms a complete agricultural production system at supply, production and marketing of agricultural products and the allocating of agricultural production materials in agricultural production process, which promotes specialization and intensification of agricultural production. Secondly, EU agricultural cooperatives have normative corporate status in market transaction, which greatly improves credit of agricultural products and farmer's negotiation ability in market transaction, and is conducive to declining monopoly degrees of buyers and sellers in the market.

### **3.2 Change of supply and demand pattern of agricultural products leading the evolution of EU agricultural development idea**

**3.2.1** Guaranteeing self-sufficiency in agricultural products being the premise of stable society development. Each EU state provides great fund support for agricultural eco-environment and sustainable food chain construction, and the main target is to guarantee self-sufficiency rate of agricultural products and sustainable de-

velopment of agricultural production. Supply quantity and quality problem of agricultural products are cores highly concerned by each state, especially in some developing countries. For example, productivity is lower in Africa, supply of agricultural products is still insufficient, and the problem of food, clothing and malnutrition is general, which affects social stability of the country to a large extent. Hence, it is an important premise of guaranteeing long-term stable development of whole society to guarantee food and clothing for the people and food health.

**3.2.2** Overproduction of agricultural products causing price and management benefit decline. EU agricultural subsidy measure has become a kind of permanent subsidies since the 1960s. Its supported amber box support measures have reached 92.39 billion dollars during 1986–1988, which accounted for 63.4% of gross agricultural production in EU. Although it improved productivity level of EU agriculture and solved the dilemma of insufficient agricultural product supply, the excessive agricultural subsidy caused overproduction and cheap price of agricultural products, and its direct effect was that EU agricultural production and management benefit abruptly declined.

**3.2.3** Agricultural subsidy expenditure expansion aggravating national financial burden, and stimulating frequent occurrence of international agricultural product transaction dispute and consumers' dissatisfaction. Seen from Table 5, yellow box support taken by EU in the 1990s was far higher than the United States and Japan, which induced strong dissatisfaction of the United States and other WTO members, and caused frequent occurrence of international agricultural products transaction dispute between EU and these countries. Meanwhile, high price subsidy measures taken by EU made that price of agricultural product in EU member states was higher than international level, which also induced great dissatisfaction of consumers.

**Table 5 Total yellow box support in the European Union, the United States and Japan during 1995–1999<sup>(7)</sup>**

Country	Total yellow box support // $\times 10^8$ dollars	Proportion to total agricultural support // %
European Union	561.9	54.7
United States	91.2	14.4
Japan	208.9	44.5

### 3.3 Reflection on agricultural development target impelling the transformation of EU agricultural development

**3.3.1** Fully adjusting agricultural industry structure and vigorously developing information technology being the internal requirements of optimizing resource allocation. During the 1980s–1990s, EU agricultural production overall showed two features. First, farmers' agricultural production technology was low, and rural labor force showed the aging trend. Second, farming activities basically stayed in the traditional pattern, and agricultural contribution to whole rural economy increasingly declined. Facing these problems, EU made a series of plans and measures of adjusting agricultural production structure, containing the following three points. First, enlarge farm scale and give direct subsidy to a joint farm; second, vigorously develop the application of information technolo-

gy in agricultural production and provide professional technical training for farmers; third, give fund support for processing, storage and sale of agricultural products, and introduce the advanced agricultural science and technology<sup>[11]</sup>. During the period, vigorous promotion of information technology by EU improved not only professional skills of rural labor force but also land productivity that was originally depressed.

**3.3.2** Stimulating and impelling internal market integration development by external agricultural competition being the inevitable choice of economic globalization. With the development of economic globalization, to main the competitive strength in international market, EU has developed toward new endogenous agricultural development model aspect. That is to say, when maintaining its independent status, rural area establishes the connection with external resource and transaction activity, and integrated development of rural local market is stimulated and impelled by the external agricultural competition and cooperation. Realizing path of the model is guiding countryside to establish network relationship with external resource or market, and effective combination of local resource and external resource could promote agricultural production ability of local countryside, and promote farmers becoming real agricultural development subject to join in variety optimization and market development of agricultural products, thereby promoting integrated development of local agricultural market<sup>[12]</sup>.

**3.3.3** Environmental destruction and food safety problems making rural development theory transform to coexistence of rural environment and economic development. With continuous improvement of EU industrialization degree, the pollution on human living environment and the destruction on ecosystem balance by various industrial waste gas released by fossil fuel are increasingly serious, which causes that rural natural environment and cultural heritage gradually disappear, and makes that people re-understand the importance of sustainable development of rural ecology. For this, EU member states also start to change agricultural development idea, and transfer the focus to agricultural ecology and environmental greening. In addition, frequent occurrence of food safety problem in recent years also induces more and more attentions. Consumers' demands on agricultural products not only stay on the problem of solving food and clothing but also more concern the quality of agricultural products. Therefore, EU gradually forms rural development theory of improving national life quality, improving rural natural environment and scientific managing various natural resources of countryside in agricultural development.

## 4 Conclusions and suggestions

**4.1 Conclusions** In this paper, starting from two angles: development scale and target of EU agriculture, development stage of its agricultural production is discussed, and main causes of EU agricultural development and evolution are analyzed; efficiency and benefit targets cause the change of EU agricultural management model; change of agricultural product supply–demand pattern leads the evolution of EU agricultural development idea; the reflection on agricultural development target impels the transformation of EU agricultural development<sup>[13]</sup>. The conclusions on this

basis are as below: agricultural development could evolve according to the changes of economic and social conditions; actively using agricultural support policy adapting to agricultural development of each stage is necessary requirement of promoting internal market stability and international market harmony; it is an important measure of impelling agricultural modernization process to promote innovation of agricultural management model and development of market integration; it is an inevitable road of realizing sustainable agricultural development to emphasize the coexistence of agriculture and rural development.

## 4.2 Suggestions

**4.2.1** Promoting China's agricultural development needing to establish agricultural support policy system which corresponds with our national conditions. To change the current situation and promote qualitative leap of China agriculture, establishing agricultural support policy system which corresponds with our national conditions is one of important measures, and specific measures contain price support policy of agricultural products, support policy of agricultural science and technology promotion, support policy of sustainable agricultural development and agricultural subsidy policy. Enhancing China's support force on "three agricultural" is conducive to adjusting supply - demand balance of agricultural product market and protecting the benefits of agricultural producers and consumers. It should strengthen agricultural subsidy intensity in the range of state finance to correctly guide the adjustment of agricultural production structure and promote fast development of China agriculture.

**4.2.2** Solving China's agricultural product quality problem needing to enhance standardized supervision of agricultural production. For food safety problems, the solving measures are as below. Firstly, it should provide education propaganda of food safety aspect for consumers and enhance consumers' rights consciousness. Secondly, government should make strict supervisory system in implementation process of related laws, such as establishing secret group to anonymously inquiry the randomly selected enterprises, giving rewards to the enterprises with better policy implementation, issuing honor certificate, punishing the enterprises that policy implementation is not in place. Via media exposure, it damages the image in public mind to a certain degree. To guarantee the reliability of government supervision, government should accept the supervision of people at all levels of society, thereby ensuring the protection of consumer rights and interests all round.

**4.2.3** Enhancing China's competitive strength in international agricultural product market needing to vigorously promote the formation of internal unified big market. In the cooperation and negotiation of promoting agricultural development, it should sufficiently use various production factors and international rules to strive for a broader development space for internal unified big market continuously improving, which is inevitable choice of China adapting to requirements of economic globalization. Specific measures are as below: first, adjust agricultural subsidy emphasis to the aspect of improving rural eco-environment and agricultural infrastructure, enhance agricultural science and technology promotion and application, and increase construction and supporting force of agricultural service system; second, on the basis of domestic agricultural

product market, strive for discourse power of China agriculture in international market by actively joining in international cooperation and negotiation. These are all important measures promoting integration process of China agricultural market<sup>[14]</sup>.

**4.2.4** When promoting agricultural development, guaranteeing sustainable development of eco-environment and production. In policy adjustment of different agricultural development stages, EU particularly emphasizes the attention to rural eco-environment and sustainable agricultural development, and actively issues new measures of protecting environment and promoting rural agricultural development, and these experiences are worth to learn in China. In the process of China promoting sustainable agricultural development, it should sufficiently consider agricultural eco-environmental problems, which is necessary requirement of enhancing new countryside construction and impelling harmonious social development. Specific measures are as below: first, refer to ecological agricultural subsidy policy implemented by EU, couple subsidies for agricultural products with farmers' investment in the protection of rural eco-environment to promote farmers consciously taking environmental protection through the whole agricultural production process; second, develop agricultural multifunctionality. For pollution problem of human living environment caused by industry development, succedaneum producing chemical raw material and mineral energy could be developed and planted to enhance ecological balance regulation ability brought by agriculture<sup>[15]</sup>.

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effect on the development and enjoyment consumption, industrial urbanization exerts a certain effect on the living and development of consumption, and land urbanization only exerts a significant effect on the enjoyment of consumption. In the direction of effect, different types of urbanization have different directions of effects. The population urbanization exerts a negative effect on development-oriented consumption, and the development of population urbanization leads to reduction of development-oriented consumption expenditure, while it exerts a significantly positive effect on education and cultural entertainment and service expenditure of enjoyment consumption; industrial urbanization exerts a negative effect on food consumption expenditure in living consumption, while it exerts a positive effect on the clothing consumption expenditure and it exerts a positive effect on the traffic and communication expenditure in development-oriented consumption; land urbanization exerts a negative effect on the medical care expenditure in enjoyment consumption, and the development of land urbanization can reduce the medical care consumption expenditure of rural residents. It can be seen that no matter in emphasis of effects or direction of effects, we could not treat effects of different types of urbanization on the consumption structure of rural residents as the same.

**4.2 Recommendations** (i) It is recommended to make clear emphasis points of different types of urbanization, avoid promoting the urbanization in a blind manner, and adjust the development of different types of urbanization on the basis of the consumption demands of rural residents. The government should control the development of different types of urbanization through macro-control, adapt to the changes in consumption structure of rural residents, formulate the development priorities of population urbanization, industrial urbanization and land urbanization, so as to stimulate the development of rural consumer market more effectively and liberate the consumption potential of rural areas. (ii) It is recommended to establish a long-term mechanism to increase the income of rural residents. From the perspective of population urbanization, it is recommended to gradually remove the system threshold, so that the urbanization in the development can absorb a large number of rural population, so as to gradually remove the semi-urbanization phenomenon. In the context of development of land urbanization obviously ahead of other two types of urbanization, land urbanization can promote the increase in income of rural residents, which should be further delved. (iii) It is recommended to improve the government transfer payment system. In this study, we selected the percentage of social security expenditure to GDP as the indicator of government transfer payment, we found that this indicator only ex-

erts a significant effect on education, culture, and entertainment expenditure of rural residents, but it exerts a significant effect on other consumption items. Therefore, it is recommended to improve the government transfer payment system. On the one hand, it is recommended to increase the transfer payment, further narrow the gap between urban and rural areas in social security. On the other hand, it is recommended to gradually set up the non-agricultural employment security system for rural residents, establish the wage compensation system, wage payment monitoring system, and rural residents re-employment training system, to ensure the increase in the income of rural residents.

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