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## The Optimization Path and the Integration Mechanism of Agricultural Insurance in the Charge of Government

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### Abstract

Agricultural insurance is an important mechanism dealing with agricultural non-systemic risk. At present, China's agricultural insurance has not yet formed a variety of financial subsidy model, policies lack effective security, what is more, the policies of agricultural insurance are still in the stage of Non-integration, the policies lack synergies and overall planning, which make it difficult to change the situation of insufficient effective demand and supply. In this regard, the government must clear optimization path of support model, optimize the financial subsidy, establish an effective monitoring mechanism among peasants, proceed to build a large-scale inter-regional agricultural insurance database, establish a linkage mechanism among relevant policies, make an overall planning for agricultural insurance, In order to achieve the virtuous cycle among farmers, agriculture, agricultural insurance, agricultural credit, promote the sustainable development of agricultural insurance.

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*Keywords:* Agricultural Insurance; Integration Mechanism ;Path; Optimization; Financial Subsidy

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### 1. Introduction

Agricultural insurance is an important mechanism dealing with agricultural non-systemic risk, also an important non-price agricultural protection tool in many developed countries. Tuo Guo-zhu et al.(2002) considered that, as for agricultural insurance, if government do not offer financial subsidies to insurance companies and farmers, the supply curve and the demand curve can not intersect<sup>[1]</sup>. Feng Wen-li(2004) considered that the systemic risk, information asymmetry and the double positive externalities of supply and demand are the general causes for agricultural insurance market failure, its root cause is the insufficient supply system. and made the use of government subsidies, tax exemptions, re-insurance and other measures to build a management system of agricultural insurance<sup>[2]</sup>. Pan Yong-hui (2008) introduced financial support system for agricultural insurance, and basic ideas of building a model. <sup>[3]</sup> Sun Xiang-yu et al.(2008) thought that the agricultural insurance market failure require appropriate government intervention, including Subsidies for premiums or operating expenses<sup>[4]</sup>.

We can see from the above Literature, Some scholars discussed the causes, patterns, utility and other aspects of Government support for agricultural insurance, and came to draw some meaningful conclusions. In addition, from a practical perspective, more than 40 countries where agricultural insurance has been implemented have provided their own financial support for agricultural insurance. But due to the different political and economic backgrounds and policy objectives, States will form a different government support model for agricultural insurance. Therefore, China must proceed from reality, according to stage of economic development, financial condition and status of the development of agricultural insurance, on the basis of foreign experience, to determine the policy support system. But at present China's policy-oriented agricultural insurance has not yet formed a variety of financial subsidy model, and the support policies are still lack of synergies between policies and overall planning, which make it difficult to highlight policy leverage.

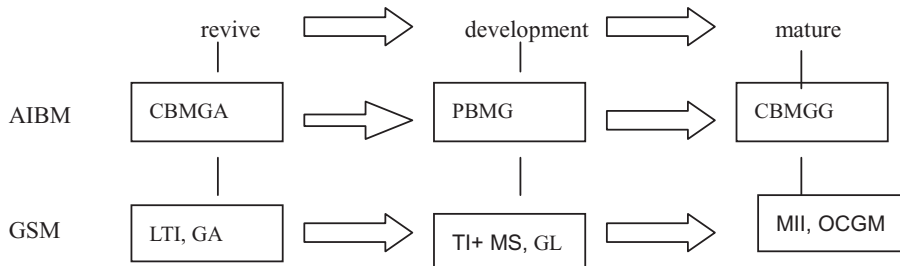
### 2. The changes of agricultural insurance and optimization path of government support model

Agricultural insurance was pilot after nation-building, but in 1958, it was discontinued for various reasons. After the reform and opening up, in order to meet the needs of the rapid development of agriculture, China resumed agricultural insurance, agricultural insurance companies implement commercial business model with their own decisions, self-financing, farmers

voluntary insurance, government does not provide additional subsidies for them, in addition to exempt their business taxes and income taxes. China's agricultural insurance has been a certain degree of development between 1982-1992, However, since 1993, it has been stagnation, its effective demand and effective supply are inadequate. In order to promote agricultural insurance, since 2004, the central government has proposed policy-oriented agricultural insurance system, the pilot work of agricultural insurance spread all over the country gradually. In 2007 the central government for the first time arrange 2.15 billion yuan to subsidize agricultural insurance premiums, in 2008 6.05 billion yuan to better the premium subsidy system. In the Government's strong support, the growing size of the agricultural insurance and coverage area expanded. At present China's agricultural insurance has covered all provinces (autonomous, regions and municipalities), 97% of the agricultural insurance premium has been subsidized at all levels.

we can see from the above practice, China's agricultural insurance gone through the three stages: revive → stagnation → to development; from business model, agricultural insurance has experienced: the commercial business model under government absence (CBMGA) → policy business model under government-led (PBMG). From the development of things, China's agricultural insurance will change from the development stage to the mature stage. Accordingly, the Government should adopt more market-oriented policies, define the reasonable role of the market and the government, through the establishment of the interests of incentives and relevant supporting systems to achieve organic integration between market and government, and a good interactive among government, insurance companies, farmers, corresponding, the business model of agricultural insurance subsequently turns to commercial business model under the guidance of government (CBMGG). In conclusion, the changes path of government support model (GSM) and agricultural insurance business model (AIBM), as shown in Table 1:

**Table 1 the changes path of GSM and AIBM**



Notes : LTI:limited tax incentives; GA:government absence; TI:tax incentives; MS:multiple subsidies ;GL: government-led; MII: mechanism of the interests incentive; OCGM:organic combination of the government and market

**3.At present, lack of sustainable policy support system on china’s agricultural insurance**

**3.1 Policies supporting agricultural insurance, lack of a strong guarantee**

First, Zhu Jun-sheng et al. (2009) considered that the relevant laws and regulations are not sound, in particular, there is no specific law or implementation of Regulations related to agricultural insurance, resulting in agricultural insurance in operation at the level of serious irregularities<sup>[5]</sup>. Second, Pan Yong-hui(2008) condered that lack of unified leadership and coordination of institutions that participate in policy-oriented agricultural insurance, which make it difficult to reconcile for work of various departments<sup>[3]</sup>. In addition, large-scale agricultural insurance database across time and across regions has not been established, it is not possible to scientifically predict the size of agricultural insurance, financial subsidies to agricultural insurance makes no scientific basis.

**3.2 Financial subsidies are facing some difficulties**

First, financial subsidies may exacerbate adverse selection and moral hazard. As the agricultural insurance in the prevalence of adverse selection and moral hazard, policy-oriented agricultural insurance makes it easier to promote the insured funds deployed in high-risk management projects. In addition, the insured farmers receive a higher premium subsidies, can obtain a considerable level of protection in the case of less cost, so that they are more likely to give up the risk prevention and mitigation relief work in advance, so that insurance companies take a greater risk.

Second, it is limited to stimulate effective demand for increase in insurance premium subsidies. Zhang Xiao-yun (2004)introduced :Since 1994 the United States improved the level of subsidy, the growth of insurance participation rates in subsequent amplification, but in 2000 the United States implemented a new Law on the Protection of agriculture, the proportion of premium subsidies was further substantial increase, the growth of insurance participation rates is little change compared with before implementation, and which also introduced some of the compulsory insurance<sup>[6]</sup>.

Third, the central in choosing subsidized regions faces dilemma. Central budget to subsidize agricultural insurance, usually require matching funds to local governments. However, as China's economic development is uneven and differences in fiscal capacity across large, generally major agricultural provinces have greater demand for agricultural insurance, but their financial situation are poorer. If the central select a major agricultural province as subsidized area, Wang Ren(2009)think there is contradiction\_ "central fill affordable, local paste can not afford," prefer not to central government subsidies, they are unwilling to develop policy-oriented agricultural insurance<sup>[7]</sup>. And the provinces with smaller proportion of agriculture, usually have a strong economic strength, even without the central government subsidies, also capable of subsidizing agricultural insurance. Which leads to the central authorities in the selection of subsidized areas, faced with the dilemma.

### **3.3 Insurance companies lack of enough support , a variety of financial subsidy model has not yet formed.**

First, narrow the scope of tax incentives, currently the only planting and breeding industry, are exempt from business tax and stamp duty. Zhang Xiao-yun(2004) introduced :While the United States and Canada provides that the federal crop insurance companies and their affiliates are all property and income tax exemptions<sup>[6]</sup>. Second, the lack of re-insurance system, and no special re-insurance agencies, making the lack of decentralized mechanisms for catastrophic risk in agriculture. Third, agricultural insurance face the high business cost, but not receive a corresponding subsidies.

### **3.4 Relevant policies lack of overall planning and coordination mechanisms**

2009 on the central 1st paper, "explore a combination of bank-insurance interaction mechanism between rural credit and agricultural insurance." Yu Guai-ya[8]considered that the industrialization of agriculture and policy-oriented agricultural insurance exists mechanisms for interaction. In addition, the policy-oriented agricultural insurance and its related investment, financing, construction, market behavior and the organization should establish mechanisms for interaction. But the moment they are not only lack of coordination mechanisms among the relevant policy, but also lack of an overall long-term planning.

## **4.Potimization and recommendations on integration**

### **4.1 To speed up legal and standard construction of agricultural insurance**

First of all, as soon as possible development specialized agricultural insurance laws and regulations, such as "policy-oriented agricultural insurance regulations" or "Agricultural Insurance Act". Secondly, set up a lead coordinating agency, primarily responsible for co-ordination of inter-departmental conflicts and issues involved agricultural insurance. In addition, proceed to build a large-scale inter-regional agricultural insurance database in order to predict the scale of agricultural insurance.

### **4.2 To establish the special compensation fund for agricultural insurance, form effective supervision among farmers**

Ibarra & Skees(2007) believed that to build index insurance according to a parameter such as weather, technology etc, which affect the behavior of market participants, can increase the Government, farmers and the insurance company tripartite information transparency, thereby determining the size of financial subsidies to agricultural insurance<sup>[9]</sup>. However, Jin Da-wei et al. (2009)thought if the supervision of the insurance agencies is transformed into internal oversight among peasants, it will achieve the maximum efficiency of oversight <sup>[10]</sup>. Specific vision: establish the special compensation fund composed by government subsidies and premiums paid by farmers each year for agricultural insurance. If there is no event of a disaster, these expenses become a base to next insurance claims, and form a fund, the Fund's residual claim belongs to all farmers, so that the farmers form the driving force for mutual supervision, while the insurance companies are only fund management organization, their benefits come from government subsidies . so win-win situations: that the Government increase its subsidies to the two, which motivate the farmers to enhance risk prevention and insurance companies to enhance fund management.

### **4.3 To optimize the financial subsidy, to support the agricultural insurance business**

(1)*The principle of subsidy*.First, optimize the scope of subsidies. The current direction of agricultural insurance should be a "low security, low-premium," to give priority to several projects involved in people's livelihood, great significance for agriculture and rural economic development, and not suitable for commercial insurance business.So give priority to form a relatively complete market, then to expand the scope of insurance support. in time.

Second, efforts to optimize the subsidy. subsidy amount and subsidy rate of agricultural insurance should be not only based on pure premium rate and the protection level, but also take into account the importance of the insurance. Tuo Guo-zhu et al.(2005) thought that in general, the subsidy rate and the net rate is proportional,but inversely with the security level; important project

with high policy objective should be subsidized more ,but projects with strong insurance aspirations for the farmers subsidized small<sup>[11]</sup>.

(2)*Efforts to support the agricultural insurance business.*First, to optimize the operating expenses subsidies. Jin Da-wei et al. (2009)thought As subsidies to operational costs easily lead to inefficiencies, and so should have the corresponding dynamic performance evaluation system, scientifically evaluating the efforts of agricultural insurance<sup>[10]</sup>, the extent of subsidies to insurance companies linked to their business results,and encourage insurance companies to strive to improve the business level.

Second,form national agricultural re-insurance agency decentralizing agricultural Catastrophe Risk. Third, expand the breadth and intensity of tax benefits, such as exempting from the agricultural insurance income tax, and various agriculture-related insurance business tax, stamp duty and income tax. Second, Chen Rong-bang(2009) thought we should explore tax exemption on loans interest income of the right-bank financial institutionsand expense subsidies, Appropriately relax the conditions of financial institution write-offs on loans to agriculture-related, allow its pre-tax charged to agricultural insurance reserve<sup>[12]</sup>. In addition, actively explore the tax incentives of investment and business institutions and organizations involved in agricultural insurance to promote the sustainable development of agricultural insurance.

#### 4.4 Establish a linkage mechanism among policies , do an overall development plan of agricultural insurance

Agricultural insurance reform must shift the overall planning from the individual break, establish linkage mechanism among the relevant policies, play a leverage of financial support. First, Focuse on building a comprehensive government -support system of agricultural insurance, the specific model is integration of the six collaborative mechanism: "farmers + agricultural industrialization leading enterprise + specialized cooperative organizations of regional farmer + policy-oriented agricultural insurance+rural credit institutions + national agricultural re-insurance group" . To set up Bancassurance Interactive mechanism , a prerequisite to obtain loans for farmers is to join in insurance, credit and insurance will be effective docking, which can effectively reduce the risk of financial institutions, strengthen lending will of financial institutions, resolve the fund bottleneck of agricultural development, promote agriculture industrialization , enhance insured capacity and risk-resisting ability of farmers , achieve the virtuous circle among the farmers, agriculture, agricultural insurance, agricultural credit. In addition, the Government should adopt interests incentives such as tax incentives to encourage credit sound financial institutions to invest in and manage agricultural insurance, to resolve the fund bottlenecks and outstanding issues on higher operating of agricultural insurance, and strengthen the market profitability of agricultural insurance companies;as far as demand of agricultural insurance, necessary to establish the appropriate incentive mechanisms,suc as the allocation of the insurance surplus, agricultural credit distribution, the distribution of benefits after the disaster and so on should be linked with the behavior of agricultural insurance.

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