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THEORETICAL REVIEW OF LONG-TERM CARE INSURANCE
ТЕОРЕТИЧНИЙ ОГЛЯД СТРАХУВАННЯ ДОВГОСТРОКОВОГО ДОГЛЯДУ**Yin Haiyan / Инь Хайянь***PhD student / аспірант*
ORCID:0000-0001-7439-1655**Huo Zhiping / Хуо Чжіпін***PhD student / аспірант*
ORCID:0000-0002-2077-2660**Mykhailov Andrii / Михайлов Андрій***Dr. in Economics., Assoc. Prof. / д.е.н., доц.*

ORCID: 0000-0003-0872-2334

Yan Xiumin / Янь Сюмін*Dr. in Management., Prof. / д.е.н., проф.**Sumy National Agrarian University, Sumy, Ukraine**HeNan Institute of Science and Technology, Henan, China*

Abstract. *The international long-term care insurance for the elderly can be divided into two categories: one is the commercial insurance model represented by the United States, and the other is the social insurance model represented by Japan and Germany. At present, with the aging of China's population, there are more and more empty-nest families, and the proportion of disabled elderly people is increasing. The lack of long-term care has become a huge threat to the elderly. In China, we should solve the problem of caring caused by the aging of the population in the current and future period. We should make the elderly long-term care guarantee cover the elderly population and formulate a reasonable long-term care system for the elderly. Based on a review of domestic research results, this article draws on the experience of long-term care commercial insurance in the United States, Germany and Japan, proposes policy recommendations for the choice of long-term care insurance in China.*

Keywords: *Long-Term Care; Long-Term Care Insurance; Aging.*

Introduction.

In recently years, the aging of countries around the world has become increasingly serious, and the increase in the number of disabled elderly people caused by aging has become a problem that all countries in the world have to face. Traditionally, family members usually take care of disabled elderly people and use family savings to pay for long-term care. However, changes in family structure – low fertility rates, scattered family members' residences, family miniaturization and widespread divorce have reduced family members' informal care for disabled elderly. In addition, due to changes in women's role in the family and more and more women are going to work, the opportunity cost of providing informal care for women have increased. These changes have made it impossible for informal care to meet the increasing demand for long-term care, while informal care is less efficient than long-term care provided by institutions. In this context, countries began to explore long-term care insurance.

This paper intends to discuss these aspects: first, define long-term care, long-term care insurance; Then review the long term care insurance need research, long term care insurance supply research, long term care system and long term care



insurance system research. Finally, the conclusion is drawn. The specific research ideas are shown in the figure below.

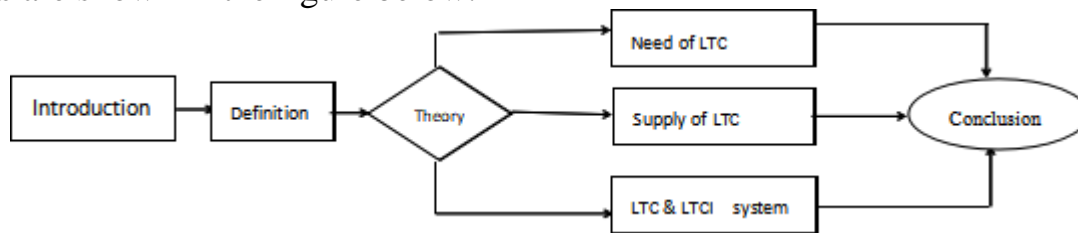


Fig.1. Research content of long-term care insurance systems

Concept definition.

Long-term care. The United States was one of the early countries to establish long-term care insurance system, the American Health Insurance Institute gave a clear definition of long-term care: In a longer period of time, for the continuous suffering from chronic diseases, such as alzheimer's disease and other cognitive impairment or disability, that is, the care provided by the person with functional impairment. It includes medical services, social services, home services, delivery services or other supportive services.” According to the world health organization, long-term care refers to care activities carried out by non-professional caregivers (family members, friends or neighbors, etc.) and professional caregivers, to ensure the highest level of independent living and personal dignity of the quality of life of those with incomplete care. Both definitions emphasize that the purpose of long-term care is to repair people with chronic diseases or loss of daily living ability, not to cure the disease or to preserve life. Unlike the treatment of chronic diseases, long-term care aims to provide supportive services for people who are disabled or lack of self-care ability, such as disability, dementia or semi-disability, semi-deterioration, etc., to maintain and enhance the physiology of patients as long as possible and ensure the quality of their lives.

Long-term care insurance. Long-term care usually refers to long-term care for the elderly, the cycle is usually long, generally up to six months, several years or even more than ten years, and the cost of care is high. The American Health Insurance Institute believes that long-term care insurance is designed for consumers and provides protection against the potentially large amount of care expenses incurred in the event of long-term care. Long-term care insurance is also defined by the American Life Insurance Management Association and Cologne General Reinsurance. Throughout the perspective of institutions and scholars at home and abroad, long-term care insurance is a kind of compensation for the cost of caring for the elderly who are partially or completely unable to take care of themselves due to old age and chronic diseases.

Theoretical research.

Based on the theory of long-term care needs of the elderly. Zhu Minglai (2011) adopts the “bottom-up” estimation method to estimate the number of elderly people who are unable to take care of themselves in the life of the elderly and the number of elderly people who are unable to take care of themselves in the future, calculate the annual average cost of long-term care needs in China, and finally estimate the total cost of long-term care for the elderly [1]. The results show that by



2050, the number of elderly people in need of long-term care in China will reach 33.31 million, which is 2.6 times that of 2010. The total cost of long-term care will need about 702.2 billion RMB to 1.17 billion RMB.

Based on factors influencing long-term care needs. Dai Weidong (2011) analyzed the differences in long-term care needs through surveys in Anhui and Jiangsu provinces. The influence factors are: region, household registration, education, no children, pensions, difficult to bathe, hemiplegia, daughter or son-in-law can take care [2]. Dai Weidong, Tao Xiubin (2012) conducted a multivariate Logit regression model analysis of the willingness of young people in Anhui and Jiangsu provinces to participate in long-term care insurance [3]. They found that the regional variables were not significant change, they worried about that the elderly without care, did not understand the policy, and worried about old age and illness, worried that the future economy will not be affluent and the educational level will be have significant change. Fan Juanjuan (2011) believes that the leading factors in the demand for long-term care services are: the rapid growth of the elderly population, the trend of aging and the increase in the proportion of obesity [4].

A study by American scholar Sturm et al. (2004) showed that obesity and disability showed a strong positive correlation [5]. The proportion of disability in men and women with mild obesity was 6.5% and 7.1%, the proportion of disability in men and women with moderate obesity rose to 9.3% and 10.8%, and the proportion of obesity in men and women with severe obesity rose to 18.7% and 21.4%. Obesity can easily lead to diseases such as arthritis, rheumatism, heart disease and high blood pressure, which are the most likely to cause disability, causing a surge in long-term care needs (Freedman, Martin and Schoeni, 2004). Among them, 30% of people with arthritis and rheumatism may be disabled, and about 23.2% of patients with heart disease and high blood pressure will cause disability. Xie Youlu (2012) conducted multiple linear regression analysis on the panel data of 21 provincial-level administrative regions in China from 2008 to 2010, it is found that there is a significant linear correlation between the four explanatory variables of RMB savings deposit of urban and rural residents, urbanization level, GDP and consumer price index; However, the impact of aging, family structure and education level on the premium income of long-term care is not significant economically, therefore, our government should establish a new long-term care insurance according to Chinese conditions [6].

Zhao Na, Chen Kai (2015) established an econometric model for analysis, based on the comparative experiment of risk notification, told participants these risk information, such as long-term care probability, average monthly long-term care cost, the average length and average daily home care on the continuous time, purchase intention transition probability for the empirical analysis, it is concluded that 33.02% of the participants choose to "not willing" before, but when they were told their risks, their purchase intention became "do" [7].

Information asymmetry. Insufficient information on long-term care risks has led to underestimation of the existence of risk, thereby curbing the effective demand for long-term care insurance. Yu Baorong, Gao Jing, Yu Longfeng (2012) empirical research found that the potential demand for life care services for the elderly in rural



areas is large [8]. The elderly in rural areas mainly rely on traditional family care, and the government-based care services are easily accepted. Lack of care resources and old-age care systems in rural areas hinder the acceptance of daily care services for the elderly.

Long-term care supply research. Wang Dewen, Xie Liangdi (2013) pointed out that the current supply of long-term care is far less than the demand, the supply service content is single, the service resources are insufficient, and it is believed that China should create a government-led "home care + community long-term care + LTC" system [9]. In terms of service content and service quality, Yang Fubin (2003) pointed out that China's current long-term care service level is still low, and the content only stays in body care and housework assistance [10], he believes that many women who work in long-term care services are older, they are not active or willing to do the job. Wang Shiquan (2004) suggested that specific care services should be provided according to the needs of different elderly people. The resources for long-term care should also be allocated reasonably, and the supply of various services should be flexible [11]. Lu Jin (2010) proposed to set up an audit and management department composed of talents in various fields to review the qualifications of seniors applying for long-term care, and then enter the next step after meeting the conditions, and tailored according to the different needs of the elderly. We should carry out personalized long-term care service plan [12]. Tian Qing (2010) believes that there is a lack of overall framework planning. Zhang Saijun (2001) pointed out that volunteers play an important role in the provision of long-term care services, but there are still many shortcomings in services [13].

Research on long-term care system. In order to cope with the increasing demand for long-term care and to meet the needs, we must build a reasonable long-term care model. Zhang Xiaotian and Lv Haiqing (1995) proposed that it is necessary to establish a multi-form or multi-level long-term care network system, which is divided into three types: home, mixed and institutional care to provide long-term [14], believes that the necessary conditions for realizing a reasonable model of long-term care for the elderly include are: rational planning of the functional layout of long-term care institutions; introduction of diversified long-term care services; implementation of case management-based long-term care management mechanisms, case managers generally responsible for the management of 40 elderly people, assessing according to the specific conditions of the elderly; establishing a long-term caring evaluation mechanism; developing a multi-supply service system.

Huang Chengli (2006) believes that with the weakening of long-term care provided by family for disabled elderly, the intensity of long-term care for the elderly by formal institutions should be increased [15]. Zhang Kan (2010) proposed to establish a long-term care service system with community long-term care services as the core in line with national conditions [16]. Li Weijie (2004) based on the analysis of the supply and demand of long-term care for urban elderly, proposed to establish long-term care service system, which based on informal long-term care provided by family members, with long-term care services at home and in the community as the core, and residential-type long-term care institutions as a supplement, this long-term care system consists of three forms: family, community and institutional long-term



care, and emphasizes family-based [17]. Yin Chengyuan (2006) proposed to establish a “home care system with government behavior as the mainstay, family care as the core, community service as the periphery, and caring system as the guarantee” [18]. Dang Junwu (2007) believes that China's long-term goal is to establish a long-term care service system covering all residents of Chinese cities and towns. The near-term goal is to build a basic framework for a long-term care service system, including five levels: establishing a long-term care insurance system and initial establishment, long-term care insurance system supplemented by social insurance and commercial insurance; foster long-term care service market; establish cooperation pattern among insurers, insured and service organizations; establish long-term care service industry standards and norms; establish long-term care services management and supervision system, and a management system with perfect system and efficient operation.

Yang Jinzhi (2006) pointed out that in the construction of long-term care mode in China, it is necessary to improve and perfect the home care service system; let the institution pension become the service system of home pension support; improve the government purchase service and evaluation supervision system. Fan Minglin (1998) believes that community service networks can be constructed from three levels: preventive, remedial and developmental, and the construction of long-term care systems can be strengthened.

Research on long-term care insurance system. China's long-term care insurance system should be based on social insurance and supplemented by commercial insurance. He Yudong and Sun Yuxi (2012) conducted a dynamic measurement of Chinese long-term care insurance supply in 2010-2050 [19]. The results show that the financing mechanism based on government support ability and personal payment ability is feasible, and even the financing mechanism based solely on personal payment ability also has certain feasibility. Internationally, Germany, Japan, and South Korea have adopted a long-term care social insurance system that is paid for by individuals, businesses and governments, which indeed solved the crisis of caring expenses for the elderly. Chinese social security system is the closest to Germany. It can learn from Germany's "long-term care insurance and follow-up medical insurance experience", adopt a combination of social insurance and commercial insurance, take social insurance as the main body, supplement with commercial insurance, and establish insurance. Basic, full coverage, multi-level long-term care insurance system. For the long-term care insurance system with social insurance as the main body, fund raising should be based on corporate and individual contributions, and the government should provide appropriate subsidies. In the context of the “new normal”, this approach seems to be contrary to the spirit of “appropriately reducing the social insurance premium rate in a timely manner” proposed by the Third Plenary Session of the 18th Central Committee, however, with the deepening of population aging, the establishment of long-term care insurance system is the trend. On the long view, the company's income from long-term care insurance premiums is higher than expenditure. Establishing a long-term care insurance system, while increasing the scope and extent of health care for insured persons, can seize the opportunity of medical insurance expansion as a new growth point for medical insurance. At the same time, the government is leading the



establishment of long-term care insurance, it is necessary to promote the development of public policies and supporting measures, then cultivate and improve the long-term care service market, promote the development of long-term care commercial insurance market. In August 2014, the “Several Opinions of the State Council on Accelerating the Development of Modern Insurance Service Industry” pointed out that it is necessary to build an insurance and people's livelihood security network and improve the multi-level social security system. It is recommended to establish commercial insurance as an important pillar of the social security system and encourage continued development. The development of China's long-term care commercial insurance is too slow, the coverage and scale are difficult to resolve the crisis of ageing care. The possible reason is the inherent weakness of commercial insurance – adverse selection. The United States mainly uses long-term care commercial insurance systems, but its scale is very limited. What are the influencing factors of long-term care commercial insurance coverage, why it only be supplemented in China's long-term care insurance system, which we can partially explain through US experiences.

Conclusion.

At the Fourth Session of the 12th National Committee of the Chinese People's Political Consultative Conference, Zhang Shiping, a member of the CPPCC, pointed out that in 2015, China's population over 60 years exceeded 222 million, and there were more than 100 million empty nesters, 70% of them were chronically ill, he proposed to include long-term care insurance in social insurance. The system will include the aging of the population as a basic national policy into the 13th Five-Year Plan. From the international experience, Japan introduced a caring insurance system when the elderly population accounted for 17.4% of the country's total population. South Korea introduced a caring insurance system when the elderly over 65 years old accounted for 10.3% of the country's total population. In 2014, China's elderly population over 65 years old accounted for 10.1% of the country's total population. China, Japan and South Korea belong to Asian countries, there are many similarities in cultural background and social environment, therefore, it is more appropriate to introduce social caring insurance at this stage. At present, people's awareness of caring insurance is relatively weak, the institutions that can provide caring services are far from meeting social needs.

Since 2012, Qingdao and Dongying City have started pilot caring insurance, but in terms of service items, service standards, service levels, etc, no unified indicators have been formed and no complete social care insurance system has been established. Japan implemented the care insurance system in 2000, but in the 1980s, it began to think about the development of an insurance policy, increased the investment in caring infrastructure, and constantly adjusted the number of professional nurses, the number of caring institutions, and the number of beds, ensure that there are sufficient resources to meet the needs while the system is running. South Korea began implementing the care insurance system in 2008, and in 2002 it has begun to develop plans to continuously expand its professional talents and service organizations. In the face of the current contradiction imbalance between supply and demand, China must accelerate the completion of the basic work of the pre-care insurance.



The government and the society need to expand the training scale of professional caring staff, build caring institutions, and improve caring facilities. Summarize and reflect on the relevant work in the cities where care insurance has been piloted, determine the proportion of contributions, service targets, service content, satisfaction indicators, etc., establish and improve the caring insurance system as soon as possible, and incorporate it into the social insurance system nationwide. Many countries have established a relatively complete caring insurance system. Among them, there are successful experiences and lessons of failure, while drawing on foreign experience, we must combine the actual situation in China to build a caring insurance system that is in line with China's national conditions. To sum up, the establishment of a caring insurance model that is jointly funded by the government, enterprises and individuals to provide services, supplemented by physical goods and cash is a choice that is more in line with China's national conditions.

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Анотація: Міжнародне страхування довгострокового догляду для літніх людей можна розділити на дві категорії: одна - це модель комерційного страхування, представлена Сполученими Штатами, а інша - модель соціального страхування, яку представляють Японія та Німеччина. В даний час, зі старінням населення Китаю, все більше і більше пустельних сімей і частка інвалідів похилого віку зростає. Відсутність довгострокового догляду стала величезною загрозою для літніх людей. У Китаї ми повинні вирішити проблему турботи, викликану старінням населення в поточному та майбутньому періоді. Ми повинні зробити гарантію довгострокового догляду за літніми людьми, що охоплює літнє населення, і сформулювати розумну систему довгострокового догляду для літніх людей. Виходячи з огляду результатів вітчизняних досліджень, ця стаття спирається на досвід комерційного страхування довготривалого догляду в США, Німеччини та Японії, пропонує політичні рекомендації щодо вибору страхування довгострокового догляду в Китаї.

Ключові слова: Довгостроковий догляд; Страхування довгострокового догляду; Старіння.