

The Relationship between Long-term Care Insurance and Intra-Family Decision-Making in the Chinese Aging Society

Abstract

This thesis aims to evaluate the relationship between long-term care insurance (LTCI, hereafter) and intra-family decision-making in the Chinese aging society. Chapter 1 examines the effect of the Chinese public LTCI system on reducing the caring burden for family caregivers. Using data from the China Health and Retirement Longitudinal Study (CHARLS) spanning from 2011 to 2018, this study investigates the effect of public LTCI on the probability of becoming caregivers, as well as its spillover effect on the labor market performance of caregivers using a difference-in-difference (DID) approach. The empirical findings demonstrate that the introduction of public LTCI significantly reduces the probability of becoming caregivers currently for both first-born and second-born children within families. Specifically, the impact is more pronounced on the first-born child due to their greater caregiving responsibilities. The larger impact on elderly individuals with moderate disabilities indicates that the public LTCI has crowding out effects on basic family caregiving, since severely disabled elderly individuals tend to rely more on professional formal care. Additionally, an event study approach is conducted to examine the parallel trend and validate the basic DID model. Through heterogeneity analysis, this chapter shows that LTCI can reduce the caring burden to a greater extent for male and younger caregivers. This can be attributed to their potential for greater engagement in the labor market and other activities. Once their parents are covered by public LTCI, caregivers have more time and energy to dedicate to other aspects of their lives, thus reducing the burden of providing long-term care. As a robustness check, this chapter also investigates the expected effect on being a caregiver in the future. The significantly negative coefficients indicate that LTCI can also reduce the potential caregiving burden in the future. Although this finding solely represents a sign of willingness, it nonetheless

reduces the psychological burden on caregivers and contributes to the sustainability of the LTCI system. Mechanism analysis reveals that this reduction in caring burden can be attributed to a decrease in informal care receiving hours and an increase in the usage of formal care by the elderly. Further analysis of caregivers' labor force participation has insignificant results, while a significant increase in annual income is observed. Moreover, the impact on elderly spouses as caregivers is found to be insignificant. These findings suggest that implementing public LTCI pilots in China can alleviate the heavy burden faced by caregivers, offering valuable insights for expanding the pilot LTCI scheme in China. Furthermore, this study has broader implications for solving the challenges of aging societies in other developing countries.

Chapter 2 investigates the effect of private LTCI ownership on the number of children in China. The analysis uses a cross-sectional dataset from the CHARLS in 2018. Since there may exist a reverse causal relationship between the dependent variable and the independent variable. Specifically, individuals who have more children may lack sufficient time to care for their aging parents, which leads to a higher likelihood of elderly parents having private LTCI. This reverse causal relationship may cause an endogenous problem and bias if solely relying on ordinary least squares (OLS) regression. To address this issue, this chapter employs the instrumental variable (IV) method, using "whether the elderly have private pensions" as the instrumental variable to conduct empirical analysis. After using the IV to control for endogeneity, this chapter finds that when elderly parents have private LTCI, there is a greater likelihood of younger generations having more small children. Moreover, when considering the birth order of the young generation, this effect is greater for second-born children and less significant for the only child within the family. These results remain robust after restricting the sample to younger individuals and younger small children to account for the one-child policy in China. Additionally, ownership of private LTCI significantly increases the probability of young generations having more than one small child. Mechanism analysis suggests that private LTCI increases fertility intentions by reducing the probability of younger generations becoming current caregivers for both first-born and second-born children. The elderly also exhibit a greater willingness to use formal care services in the future, thereby reducing the potential

caregiving burden for the younger generation. Furthermore, the increase in fertility intention is particularly significant for the oldest sons, young daughters, the younger generation co-residing with parents, and whose elderly parents with rural hukou (household registration). Based on these findings, it is recommended that the government promotes the development of private LTCI as a viable solution to address the challenges posed by the aging society in China.

Chapter 3 examines the causal relationship between family structure and the demand for private LTCI. Using nationwide data from the CHARLS, including both cross-sectional data from 2018 and panel data spanning from 2011 to 2018, the effect of spouse and child generation, including factors such as the number of children and residence status is estimated. To control the endogenous problem related to residential status, this chapter uses the “number of daughters” as an IV. This research indicates that the effect of having a living spouse on the ownership of private LTCI is significant and negative. This means that the elderly without a spouse as a companion are more likely to have private LTCI. The coefficient for the number of adult children is also significant and negative, indicating that an increase in the number of adult children can significantly substitute and reduce the demand for private LTCI. Since the declining fertility rate and increasing dependency ratio in the Chinese aging society, the decrease in the number of children may lead to a higher demand for private LTCI. Using the IV method, the coefficient for residential status is improved and also negative, suggesting that the elderly who live together with their children are less likely to have private LTCI. The results are robust when panel data is used to eliminate individual effects. Furthermore, this chapter also investigates the decisions related to purchasing private LTCI, specifically focusing on the effect of newly acquiring such insurance. However, the results are insignificant. On the one hand, these findings help explain the limited demand for private LTCI in China. On the other hand, it implies that the demand for private LTCI may increase with the rapid population aging. It is suggested that family structure has a significant impact on the demand for private LTCI, and insurance companies should consider designing a more diverse range of LTCI products in response.