

Countermeasures for Commercial Pension Insurance under Negative Interest Rates

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Abstract

In the past 20 years, the global interest rate benchmark has continuously declined. The low-interest-rate environment has had a significant impact on the asset-liability management of the insurance industry. A declining interest rate environment lowers investment returns for insurance companies. In cases of severe yield mismatch, insurance companies are also highly vulnerable to risks associated with interest rate spreads. This article points out the actual negative interest rate environment currently faced by China's pension insurance industry, analyzes the causes of interest rate spread risk, and finally puts forward feasible policy recommendations from the perspectives of companies and regulation.

Keywords

Actual Negative Interest Rates; Interest Spread Losses; Commercial Pension Insurance.

1. Introduction

Actual negative interest rates refer to a situation where the Consumer Price Index (CPI) exceeds the interest rate on bank deposits. Currently, China's real economy continues to weaken, and the likelihood of the central bank raising interest rates in the short term is low. As the price index continues to rise, the current environment of negative real interest rates has led people to focus more on protecting their savings from losing value. With the growing awareness of personal finance, amidst this surge in interest in financial management, the insurance industry is facing both unprecedented challenges and opportunities.

The impact of interest margin losses is severe for life insurance companies. Firstly, the existence of interest margin losses can lead to a situation where the assets of the life insurance company are less than its liabilities, resulting in negative equity for the owners. This can negatively affect the company's image as a stable and sound operator. Secondly, it impacts the company's solvency. If the return on funds invested by the life insurance company consistently fails to meet the prescribed interest rate for the life insurance policies, it will result in persistent and accumulating interest margin losses. Over time, the absolute amount of these losses will increase, leading to a "snowball effect" where the interest margin loss grows year by year, resulting in a severe solvency crisis. At last, it reduces the overall return on fund utilization. Interest margin losses represent unprotected reserves, which reduce the absolute amount of funds available for investment and, in turn, reduce the potential returns from fund utilization. This negatively affects the overall return on investments.

2. Analysis of the Causes of Interest Spread Risk in Commercial Pension Insurance

The main risk in commercial pension insurance concerning interest spread is the loss caused by the difference in interest rates. Analyzing the causes of interest spread risk is essentially analyzing the reasons for this loss.

From a macro perspective, as global interest rates continue to decline, the investment environment gradually worsens. To fulfill the promised returns to customers, which are the predetermined interest rates, life insurance companies also have to lower these rates. Otherwise, they would face significant risks of interest spread losses. By comparing the historical one-year deposit rates with the rates set for insurance policies, we can explain the reasons for interest spread losses in our country from a policy standpoint.

Since 1990, the annual one-year deposit rates in our country are shown in Table 1. Additionally, the table also includes the annual CPI increase and the real interest rate (one-year deposit rate minus CPI) for each year.

Table 1. Nominal Interest Rate, CPI, and Real Interest Rate Data in China from 1990 to 2023

year	One-year deposit interest rate(%)	CPI(%)	real interest rate(%)	year	One-year deposit interest rate(%)	CPI(%)	real interest rate(%)
1990	8.64	3.1	5.54	2007	4.14	4.8	-0.66
1991	7.56	3.4	4.16	2008	2.25	5.9	-3.65
1992	7.56	6.4	1.16	2009	2.25	-0.7	2.95
1993	10.98	14.7	-3.72	2010	2.75	3.3	-0.55
1994	10.98	24.1	-13.12	2011	3.5	5.4	-1.9
1995	10.98	17.1	-6.12	2012	3	2.6	0.4
1996	7.47	8.3	-0.83	2013	3	2.6	0.4
1997	5.67	2.8	2.87	2014	2.75	2	0.75
1998	3.78	-0.8	4.58	2015	1.5	1.4	0.1
1999	2.25	-1.4	3.65	2016	1.5	2	-0.5
2000	2.25	0.4	1.85	2017	1.5	1.6	-0.1
2001	2.25	0.7	1.55	2018	1.5	2.1	-0.6
2002	1.98	-0.8	2.78	2019	1.5	2.9	-1.4
2003	1.98	1.2	0.78	2020	1.5	2.5	-1
2004	2.25	3.9	-1.65	2021	1.5	0.9	0.6
2005	2.25	1.8	0.45	2022	1.5	2	-0.5
2006	2.52	1.5	1.02	2023	1.5	0	1.5

Meanwhile, the long-term life insurance products' guaranteed interest rates of life insurance companies have also undergone several significant adjustments.

Table 2. Policy Predetermined Interest Rate Adjustment Table

Adjusted Year	1988	1997	1998	1999	2013	2019
Policy Predetermined Interest Rate	8.8	6.5	5	2.5	4.025	3.5

The comparison of the trends in changes of one-year deposit interest rates and the guaranteed interest rates of policies for each year is shown in figure 1.

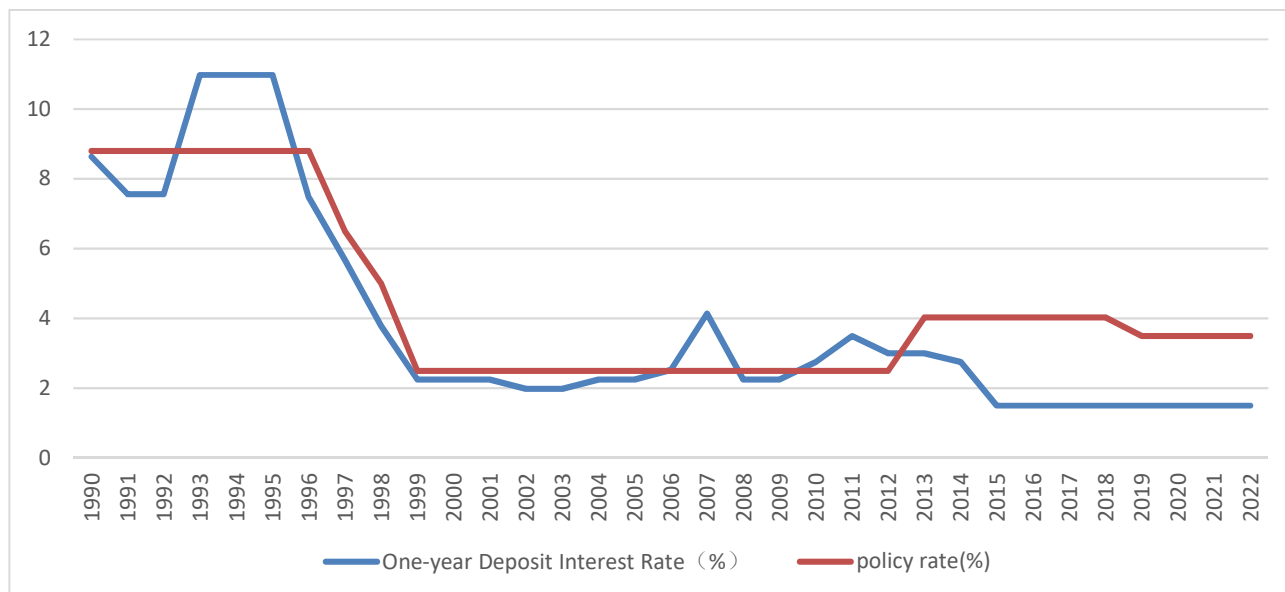


Figure 1. Comparison of Trends in Two Types of Interest Rates

Interest spread loss refers to the loss incurred by life insurance companies when the investment returns of their funds are lower than the average guaranteed interest rate of effective life insurance policies. If we use the one-year deposit interest rate to represent the average yield of the funds utilized by life insurance companies, then the difference between the one-year deposit interest rate and the policy's guaranteed interest rate can to some extent reflect the existence of interest spread loss. As shown in the above figure, overall, the long-term life insurance guaranteed interest rates in China have been adjusted along with changes in bank deposit interest rates. However, historically, these adjustments have almost always lagged behind the changes in bank deposit interest rates. Under the premise of a negative interest spread, the more premium income and the greater the increase, the larger the underwriting losses borne by life insurance companies.

In recent years, both domestic and international situations have been challenging, leading to a generally pessimistic outlook for future investment returns. Clearly, the previously set guaranteed interest rate of 3.5% is no longer suitable for the current investment environment, which may result in significant interest spread losses in the industry. As a result, since April 2023, insurance companies have received guidance from regulatory authorities and have been required to remove life insurance products with guaranteed interest rates higher than 3% from the market by the end of July. This implies that we may enter a new era of 3.0% guaranteed interest rates. The purpose of this regulatory policy adjustment is to reduce interest spread risks for life insurance companies and better fulfill the protective role of insurance products.

The above description only outlines the formation and manifestation of interest spread losses. Now, let's analyze the causes behind them:

(1)Direct cause: The persistently high guaranteed interest rate of life insurance policies, coupled with adjustments that lag behind changes in deposit interest rates, contribute to interest spread widening and increased interest spread losses. This is further exacerbated by the decreasing "investment yield" represented by the deposit interest rate, resulting in interest spread risks.

(2)One of the deep-rooted reasons is the excessive or disorderly competition in the insurance industry. Over the past 20 years, it is undeniable that the insurance industry has made significant progress, especially in the life insurance sector. However, like other financial industries, it has also faced serious financial irregularities such as "pseudo-innovation," "barbaric growth," and "cut-throat competition" during its rapid development, which

necessitated a cleanup and rectification. Even after the reforms, intense competition still persists within the insurance industry. In order to seize the market, attract customers, expand their business, and engage in price competition, insurance companies set relatively high "policy reservation rates" and are reluctant to lower them. As a result, the cost for insurance companies remains high, which undoubtedly has a profound impact on the widening of interest rate spreads.

(3) Another deep-rooted reason is the slowdown in economic growth, leading to a decline in neutral interest rates. Since 2022, China's economic development has entered a "new normal," with the growth rate continuing to decline from 9% to around 5%. The unfavorable economic situation has led to a decrease in corporate profitability and a reduction in the capital profit rate for the entire society. Interest comes from profits, and as the profit rate decreases, the interest rate will inevitably follow suit. Low interest rates have become almost normal throughout society, and negative interest rates sometimes occur. In this context, the returns on financial investments and wealth management have continued to decline, resulting in serious losses for public funds and bank wealth management. This has an extremely adverse impact on the use of funds and investment returns for insurance companies, resulting in a decline in asset-side returns and an expansion of interest rate spread losses. The interest rate risk for insurance companies has increased accordingly.

(4) Another deep-rooted reason is that people have insufficient understanding of commercial pension insurance, and the national life expectancy has increased. Commercial pension insurance has not been implemented in China for a long time, and people's understanding of it is inadequate, leading to a lack of active participation. At the same time, the main group "expected" to purchase commercial pension insurance products is between 50-70 years old. However, this group has a strong sense of "traditional savings" and consciously or unconsciously compares "insurance" with investment management and savings returns. They will not buy if the "policy reservation rate" is low. Insurance companies design products with relatively high "policy reservation rates" to "attract" these customers. However, as life expectancy continues to increase and deposit rates and investment returns decrease, the interest rate spread risk of commercial pension insurance will inevitably expand.

In addition, factors such as the rapid development and widespread application of financial technology, reforms in the financial regulatory system, the accumulation of financial risks, inadequate supply of insurance products, and a lack of insurance professionals also have varying degrees of impact on the occurrence of interest rate spread risk in commercial pension insurance.

3. Countermeasures for Preventing Interest Rate Spread Risk in Commercial Pension Insurance

The insurance period for commercial pension insurance mentioned in this article is generally more than 30 years, so the accumulation effect of interest rate spread losses is even greater. In addition to resolving outstanding interest rate spread losses, the pension insurance industry should strengthen its risk management capabilities and improve its asset-liability management to avoid new interest rate spread losses.

In theory, the occurrence of interest rate spread losses does not necessarily indicate that a company's operations are in a loss-making state, as other sources of income may partially offset the losses. However, the mortality rate of insured populations is unlikely to change significantly in normal circumstances, and the expense ratio also remains relatively stable due to restrictions imposed by the company's management level. If the interest rate spread loss is significant, it also indicates operational losses. Therefore, while responding to the national call to develop

commercial pension insurance, life insurance companies should continuously improve their internal management level and do well in controlling interest rate spread risks:

(1) Actively adjust product structure to promote product transformation. The product structure of a company will to some extent affect the financial stability of the company through policy cash flows. Currently, in the reserve composition of life insurance businesses in China, savings-type policies with returns account for the largest proportion. Such a product composition will inevitably create significant pressure on interest rate spreads, while protection-type products have stronger resistance to economic risks. Therefore, adjusting the product structure and moderately increasing the protection attributes of pension insurance products is an effective way to address interest rate spread losses.

(2) Develop new pension products to improve company performance. Due to the significant interest rate spread risk brought by traditional pension insurance products with high guaranteed interest rates, life insurance companies in developed countries have been developing new products to mitigate interest rate spread risks. These include investment-linked, universal, and dividend-type products, which enable risk sharing between insurance companies and policyholders. When market interest rates fluctuate and interest rate spread risks occur, insurers and policyholders share the spread losses, thereby reducing the losses for life insurance companies. Since the pilot of commercial pension insurance in 2023, participating pension insurance companies have successively issued various innovative and investment-oriented pension insurance products, such as China Life's Secure and Enjoyable Commercial Pension and PICC's Warm Years Commercial Pension.

(3) Strengthen investment management to increase investment return. The utilization of insurance funds, as the primary operation of insurance companies' asset side, has become a reflection of the core competitiveness of insurance companies. Internationally, the function of insurance industry, which can accumulate a large amount of funds, has evolved from solely providing protection services to providing both protection and fund management services. The use of insurance funds to create maximum value while ensuring the safety of insurance funds to make up for the insufficient solvency capacity brought by underwriting business has become a core indicator for measuring the operational development and market competitiveness of insurance companies.

(4) Enhance internal control and management capabilities of life insurance companies. Internal control, as a self-disciplinary behavior of insurance companies, refers to the mechanism, measures, and procedures implemented by the company to manage and control internal business activities in order to achieve established goals and prevent risks. Insurance companies should establish sound organizational structure, risk estimation and monitoring systems, and further establish interest rate risk management policies and monitoring procedures. Regular reviews should be conducted on the independence of the company's interest rate risk management procedures.

In addition, regulatory authorities should strengthen micro-prudential supervision, focusing on solvency supervision system, asset-liability management supervision system, and reserve fund supervision system to constrain prudent operation of insurance companies. They should also enhance monitoring of interest rate spread risk, continuously and strictly monitor the industry, promptly identify potential risks, identify problematic companies, urge insurance companies to control risks, and safeguard the legitimate rights and interests of policyholders.

4. Conclusion

Under the global low interest rate environment and the economic downturn in China, the risk of interest rate spread loss is an issue that deserves attention and research. This will be a major challenge faced by the life insurance industry in the future. Insurance companies should

establish a culture of prudent management, adhering to cautious and sound product pricing and investment strategies to prevent interest rate spread loss risks.

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