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Some Ethical Issues in Joint Life Insurance

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One of the most common kinds of insurance, joint life insurance assures other partners in the plan compensation once the insured passes away. This kind of policy provides extra liquidity to the partners' cash flow. However, it could possibly trigger malicious moves to harm others if the insurance policy reaches its maturity date without the death of any member of the insured party. This paper starts by examining the broad topic of life insurance and the market demand. There are ethical issues in providing joint life insurance. These are shown through a case study of tontines in the last section. Finally, there are some suggestions and modifications to improve mutual life insurance products.

Part I: Introduction to life insurance

The concept of life insurance existed extensively in areas such as China and Babylon. Throughout time, insurance has evolved, but until the early 18th century, a British company called the Amicable Society for a Perpetual Assurance Office formally established all insurance policies. The insurance market was prosperous during World War I but experienced a downturn during the Great Depression. After the recovery, the insurance market continued to develop in the U.S and U.K. and expanded to Europe. In the 21st century, life insurance is one of the biggest branches in the insurance market. It can easily be purchased in banks, investment banks and insurance companies.

a) What is Joint life insurance?

Joint life insurance covers multiple lives with covenantal compensations once the insurance conditions have been met. These conditions might vary slightly among the types of joint life insurance in the market.

In general there are three types of joint life insurance products: 1) First-to-die insurance; 2) Last-to-die insurance; and 3) survivorship insurance. First-to-die insurance, the most common form of joint life insurance, pays upon the first death of the insured group. Similarly, last-to-die insurance pays out when the last insured person in the contract is dead. In contrast, the survivorship insurance pays for the survival of all participants at the end of the policy term. Joint life insurance is usually purchased by couples or business partners to secure their financial liquidity or that of their beneficiaries upon their deaths.

b) Ethical issues related to insurance products

Even though most life insurance is intended to provide financial liquidity, cases of life insurance abuse have happened repeatedly throughout the last few decades. Murders and threats of the insured's safety have been recorded in newspaper articles since the 19th century. Belle Gunness, a female serial killer, murdered more than 40 people between 1884 and 1908 for the sake of insurance compensation. The "Black Widow" murder cases behind multimillion-dollar life insurance claims in 1999 and 2005 again highlight the misconduct arising from life insurance.

Unfortunately, similar stories have occurred across the world. Child homicides were frequently reported frequently in England during the 1900s for insurance profits following British laws banning coroners from inquiring about children's deaths (Fisher, 2009). According to J. Hicks and G. Allen, there was an increase in homicides in England and Wales in the 1900s, with the homicide rate climbing from 6.2 per million in 1960 to 14.5 per million in the 1990s (Hicks and Allen, 1999). Even though the law was rescinded to allow coroners to examine all unexpected, sudden deaths, hundreds of murders had already occurred, taking many young lives.

Meanwhile, according to J. Lemaire, in the year 2000, homicides and suicides caused by a firearm reduced U.S. life expectancy by an average of 103.6 days (166.8 days for men and 30.5 days for women) (Lemaire, 2005). With an estimated 148 million group life insurance policies and 35 million individual life insurance policies existing in 2000, the cost in reduction of life expectancy was roughly $4.9 billion, not to mention other causes of murder during that same period. It is estimated that billions in compensation have been taken out in the last decade, with deleterious impact to insurance company profits in America.

On the other of the Pacific, Japan, one of the most well developed countries in Asia, also encountered a sizable amount of life insurance fraud cases. According to J. Adelstein, in approximately 30,000 cases of "suicide" in Japan in 2011, more than 25 percent had unknown or unclear motives (Adelstein, 2013). According to the National Police Agency of Japan, only 5 percent of suicide cases underwent an autopsy, leaving lots of suspicious "suicides" without further investigation. From 1998 through 2012, 45 "suicide" cases were successfully reinvestigated and proven to be murder cases. It was found that one-third of the murderers killed to get insurance benefits. This may be just the tip of the iceberg, as a many more suspected suicide cases involving life insurance are waiting to be uncovered.

Insurers should bear some responsibility for the insured's safety, although the potential risk can rarely be anticipated. Insurance companies should protect the insured from being exposed to threats during the underwriting of the insurance policy terms. Risk investigation and evaluation of the possibility of murders should be undertaken during the underwriting process. However, the expensive cost of information collection and administration often push insurance firms away from detailed investigations, creating potential risk to insured people.

Is there any possible way to efficiently lower the murder risk while keeping the cost of insurance companies at an acceptable level? This topic will be discussed in the latter part of this article.

Part II: Demand and trends in the insurance market

Why should we focus on the ethics of life insurance while we have so many financial misconduct issues to care about? The critical answer is because life insurance is popular in the financial markets and will maintain its popularity in the foreseeable future.

Studies related to increasing insurance demand have been conducted for years, and there are five major factors resulting in the strong and persistent growth of the insurance market. According to Emily Zietz's 2003 summary of insurance demand research from 1967 to 2001, rising demand is explained by four major demographical factors and one behavioural factor (Zietz, 2003).

a) Demographic factors:

Firstly, there is a positive relationship between a spouse who works outside of the home and the purchase of life insurance. This implies that globalization and advanced travel technology, which makes business trips less costly for firms, leads to more international travel, thus generating more sales of life insurance products.

Secondly, the demand for insurance products increases with educational level. The higher the education level, the higher the value of human capital to society, as higher levels of skill and knowledge bring a positive return to firms and families. With improvements in the world's literacy rate and education achievement, there is an increasing demand for life insurance products.

Thirdly, Zietz states that insurance demand grows with progress through the stages of life. As the insured person gets older, there is a greater chance for the policy to pay off. This encourages consumers to purchase life insurance for the purpose of reassuring financial liquidity after the insured's death. With trends of longevity, the ratio of old to young people has been raising progressively this century. This, again, contributes to the demand for life insurance.

Lastly, the level of wealth or income is proportionally related to the rise in life insurance demand. Research finds that rich people are more likely to fear death; therefore, the concept of insurance is more appealing to them and their spouses.

b) Human Nature:

Studies show that the risk-averse nature of investors and consumers encourage the purchase of life insurance. "Risk-averse nature" refers to the behaviour of avoiding risks that have been observed in the market for the last few decades. Investors would prefer to keep their money in "safe-hands" instead of risky portfolios. The liquidity-ensuring nature of insurance matches the risk-averse psychology of consumers. This explains the popularity of life insurance policies in recent decades.

The factors above summarize the success of life insurance in the past. Influenced by current financial and political trends, the life insurance market will continue to boom in the future.

Life insurance products have reformed and modified to suit investors' needs. Thus, the regulations and guidelines of underwriting insurance policies should be re-examined and updated in order to prevent malicious acts when using life insurance. Significant trends and changes are discussed in the following section.

Current trends and potential threats of life insurance policies:

1) After the Global Financial Crisis (GFC), governments and firms around the world cut their contributions to pensions and superannuations, which led to increasing demand for individual insurance and retirement products. A report, given by the Boston Consulting Group (BCG) in 2014, points out that the massive cut in retirement pension funds has created more opportunities for individual insurance businesses, such as the development of customized life insurance and health insurance (Boston Consulting Group, 2014). BCG also expects there will be more tailor-made insurance products in the future to meet the emerging demand for personal insurance.

The existing rules and regulations on insurance policies might not explicitly cover the conditions of new tailor-made insurance products. This could be a loophole for a money-oriented insurance underwriter to design risky life insurance products.

2) The reduction of trading barriers and increased openness in emerging markets reveal the huge growth potential for the insurance industry. Newly formed local insurance companies underwrite insurance policies in these new markets. Without well-defined laws and rules on insurance policies and claiming terms, the insured group might be exposed to personal safety hazards and be at risk.

3) The exponential increase of personal wealth among citizens in developing countries accounts for another stimulus to the rapidly growing insurance industry. Rapid and innovative insurance product development may create ethical concerns if regulation is not clearly established in the emerging markets. Note the analogy to the development of innovative financial instruments in the 2000s, such as Collateralized Debt Obligations (CDOs) and their contribution to the GFC. Thus, innovative insurance products may bring unforeseen harm to the insured.

Part III: Case study: Tontine in 17th and 18th centuries vs. modern tontines pension – intuition of modification

One of the most explicit ways to protect the insured from intentional murder is to evaluate the motives of the beneficiaries. As mentioned at the beginning of this article, it would be very costly for insurance companies to do a thorough evaluation every time they underwrite policies. Alternatively, insurers can modify the mutual life insurance policy to lower the safety risk. From the case study of the tontine pension, we find some ideas for modifying existing joint life insurance policies.

a) Background of tontine

Tontine is a form of capital raising devised by the Neapolitan banker Lorenzo de Tonti in 1653. This investment plan was spread widely in the 17th and 18th centuries, involving much fundraising and historical construction in the period. The purpose of tontine is to gather money among investors and provide an annual return from the profit of the investment. The investment rewards are equally shared among the number of surviving investors at the end of each year, implying fewer surviving investors means a larger the share of the investment return. The traditional tontine has been banned in both the U.S. and U.K., as the investment plan creates a motive for ending the life of the insured. The story of tontine was used in many novels and movies as a common theme of murderous plots.

a) Modern tontine pension

Despite the abandonment of classical tontine, the new, modified versions of tontine is widely accepted by the market. By studying the adjustments of the new tontine, we get some ideas on how a joint life insurance policy should be designed to avoid malicious murders.

A common modified version of tontine, also known as Fair Tontine Annuity, proposed by MJ Sabin in 2010, is an annuity that provides a yearly payment arrangement that matches with the expected present value of the initial one-time upfront payment (Sabin, 2010). Simply put, the total return received by the investor throughout her lifetime is equivalent to the initial payment she pays for the tontine pension. For example, say there are nine people in the U.S. with a $90,000 Fair Tontine Annuity (FTA). Now say a 65-year-old woman joins the FTA with an initial payment of $10,000. The FTA payment will be based upon the participants' life expectancies, as well as the initial contribution to FTA. If we assume the 65-year-old lady will live to be 68, and one participant will die each year for the next three years, with an interest rate of 1.5 percent p.a., the lady will receive each year:

Year	Number of participants	Total investment return	Portion shared for the 65 years old woman	Present value of the payment for the 65 years old woman
1	9	100000*29.7%	3300	3300/1.015 = 3251.2315
2	8	100000*27.2%	3400	3400/1.015^2 = 3300.2499
3	7	100000*25.2%	3600	3600/1.015^3 = 3448.9403

Under the FTA scheme, the total amount the 65-year-old woman will receive will be roughly $10,000 in present value, which is equivalent to what she initially paid as illustrated in the example.

Despite the friction of transaction costs and estimation errors, the intuition behind the Fair Tontine Annuity is that each participant will receive the total amount that she invested regardless of the deaths of other investors. Hence, this could discourage anyone from hurting other investors in the group. This type of annuity can be efficiently simulated using computer programs by adjusting the number of surviving investors each year. Investors will receive a floating rate of return depending on both the financial condition and deaths of other investors in the year.

Another suggestion from JB Forman and MJ Sabin is that the tontine scheme should keep adding new participants to the investor group to strike a balance between incoming and outgoing investors and maintain approximately the same number of investors for profit sharing (Forman and Sabin, 2014). By holding zero net change in the number of participants in the capital-raising group, the returns of an investor would not be altered by the death of any other investor since the same number of new investors is introduced to the group. As a result, there would be no incentive for murder.

To conclude, the tontine case study provides us with two practical solutions to joint life insurance misconduct, i.e. a fair lifetime payment scheme and the introduction of new investors.

Part IV: Conclusion and Suggestions

There are problems to traditional joint life insurance that may bring potential harm to an insured's life. Based on current trends, insurance is going to continue its strong growth in both developed and developing countries. In order to lower homicide rates associated with insurance fraud, insurance companies should be more prudent in evaluating the risk of malicious intent of beneficiaries. Moreover, insurers can develop new insurance products that align contain features of fair payment and zero net change of investors.

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