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WHY LIFE INSURANCE POLICY PRICES DIFFER

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LIFE INSURANCE POLICY
PRICES DIFFER

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ABSTRACT

Life insurance policy prices have been observed to vary widely for the same amount of protection. This has prompted recommendations for additional state price disclosure regulations for life insurance companies. The price disclosure would be summarized by price indexes which take into account policy premiums, dividends (for participating policies) and cash value (for whole life policies).

However, life insurance policies differ for reasons other than differences in premiums, dividends, and cash value. Life insurance policies include numerous contract provisions, and these contract provisions can vary between companies. In addition, the companies issuing life insurance policies differ with respect to their financial stability. This report discusses why life insurance policy prices are expected to vary because of differences in contract provisions and financial characteristics of the issuing company, and new evidence is presented to support the claims. Implications for both regulators and consumers are discussed.

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WHY
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INTRODUCTION

Life insurance is an integral part of many households' financial planning. The major purpose of life insurance is to provide income to the financial dependents of an income earner in the event that the income earner dies. Life insurance can also be a major expense for households, for example, easily exceeding $500 annually for a policy providing $50,000 of protection.

For these reasons and others, the life insurance market has received considerable attention in many studies [1,2,3,5,6,7,8,9]. One consistent finding of these studies is that after accounting for differences in dividend payments (on participating policies) and cash values (on whole life policies), the prices of policies per $1,000 of protection vary considerably. Some analysts have argued that this finding implies that consumers buying more expensive policies are paying more than necessary for life insurance protection. The studies generally conclude that consumers don't have enough information and expertise to make informed choices about life insurance.

Two remedies to this situation have been recommended. One is to improve the education of consumers regarding life insurance and the life insurance market. A second remedy is for the states to require

cost disclosure in the marketing of life insurance policies. This cost disclosure would present the cost per $1,000 of protection after accounting for expected dividends (on participating policies) and cash values (on whole life policies). The Interest Adjusted Cost Index, Surrender Cost Index, and Linton Yield are three price indices which have been recommended as part of this price disclosure requirement.[1] The contention is that consumers can use these indices to rank policies and select the least costly one; furthermore, it is thought that requiring the indices will force "high cost" companies to lower their prices.

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[1]The Interest Adjusted Cost Index (IACI) is formed by first converting all premium payments over the period of comparison, all dividend receipts (if the policy is participating) over the period of comparison, and the cash value (for whole life policies) for the last year of the comparison period to present values in order to account for the changing value of the dollar over time. Typically, an interest rate of 4 or 5 percent is used to represent the annual decline in the dollar's value. The IACI then equals the present value sum of premiums minus the present value sum of expected dividends minus the present value of the cash value for the last year of the comparison period.

The Surrender Cost Index is the same as the IACI except that future values of premiums and dividends are calculated rather than present values (that is, dollars are accumulated with interest rather than discounted).

The Linton Yield (LY) is used only for whole life policies. It is calculated in two steps. First, from the schedule of whole life premiums over the comparison period is subtracted the complementary schedule of some term policy premiums which represent the cost of pure protection. The resulting residuals represent that part of the whole life policy premiums that accumulate to the cash values. The LY is then the internal rate of return that would be applied to the residual savings such that they would yield the cash value at a specified future point.

CHARACTERISTICS OF LIFE INSURANCE POLICIES

The studies cited above assume that life insurance policies are composed of at most three parts: a protection element, a dividend element (for participating policies), and a cash value element (for whole life policies). The recommendations for price disclosure and the recommended price indices are based on this view of life insurance policies.

However, life insurance policies are more complicated products, and their prices differ for at least two other reasons: differences in contract provisions and differences in certain characteristics of the issuing company.

Contract Provisions

Life insurance policies contain numerous contract provisions. These contract provisions specify various conditions such as: (1) conditions related to the reinstatement of the policy in case the policyholder lets the policy lapse, such as the time limit for reinstatement and the interest rate charged on skipped premium payments; (2) conditions related to the settlement of the policy in case of death of the insured, such as the numbers and kinds of settlement options, (e.g., payment in lump sum, face amount held by company with interest earned, payment as an annuity), the minimum interest rate paid on settlement options, and the minimum face value amount necessary for payment of the settlement by other than lump sum; (3) the minimum interest rate paid on accumulated dividends if the policy is participating; (4) the effective loan interest rate charged on policy loans from whole life policies; (5) conditions related to renewal and conversion of term policies; and (6) other conditions, such as whether the policy premiums can be reduced in the future.

Specifications on contract provisions vary between policies. Furthermore, it is expected that consumers would prefer some specifications over others. For example, consider the effective loan interest rate charged on policy loans from whole life policies. Lower loan rates result in lower loan charges; therefore, it is expected that consumers prefer whole life insurance policies that have lower effective loan interest rates and would be willing to pay more for such policies. As another example, consider the minimum interest rate paid on settlement options. A higher minimum interest rate means a policyholder's beneficiaries are assured of larger minimum settlement payments if the insured dies. Again, since it is expected that consumers prefer policies that promise larger settlement payments, consumers will be willing to pay more for such policies.

Company Characteristics

Life insurance policies also differ because they are issued by different companies. From the consumer's perspective, the important company characteristics are those related to the level of service provided by the company to the policyholder and the risk of default by the company. Consumers may be willing to pay more for policies issued from companies providing a higher level of service if that service is in the form of monitoring policyholders' insurance requirements over time. Consumers also likely prefer policies issued from companies which are viewed as less risky because this implies a higher probablity of the company being able to pay claims generated from policyholder deaths.

Implications for Policy Prices

The major points of the previous discussion are that:) (1) life insurance policies vary not only by dividend and cash value characteristics but also by characteristics related to contract provisions and characteristics related to the service and risk features of the company; (2) some specifications of contract provisions and selected company characteristics are viewed more favorably by consumers than other specifications; and (3) consumers therefore are willing to pay more for policies containing more favorable specifications of contract

provisions and company characteristics. In short, just as the characteristics of a house, such as number of rooms, quality of carpet, type of heating system, and the presence or absence of air conditioning affect the house's price, so too do policy contract provisions and selected characteristics of the company issuing the policy affect the price of the life insurance policy.

RESULTS OF A STUDY EXAMINING PRICE DIFFERENCES IN LIFE INSURANCE POLICIES

The author concluded a study which examined price differences in a sample of whole life insurance policies and a sample of term insurance policies marketed in North Carolina in 1982 [10]. All policies were designed for males, aged 35. The policies contained no special riders.[2] The purpose of the study was to see if differences in policy contract provisions and selected company characteristics were related to differences in policy price, and to see if differences in these characteristics, together with differences in dividend and cash value characteristics, could account for a substantial degree of the variation in policy prices. Data were not available on the service characteristics of the issuing company, so only the impact of company financial risk characteristics was examined. Additionally, not enough data were available to see if the ownership characteristic of the issuing company--stock or mutual--made a difference.

Policy price for both the whole life and term policies was calculated as the gross single premium per $1,000 of protection. The gross single premium is simply the single premium which the policyholder can pay at the beginning of the policy's coverage period *in lieu* of periodic payment of premiums. The gross single premium is calculated by summing the discounted value of periodic premium payments.

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[2]For details of the study, including a discussion of the sample, data, and methodology, consult [10].

Whole Life Policy Analysis

The results of the analysis of price differences in whole life policies are summarized in Table 1 and discussed below.

1. Dividends: Dividends are returns to the policyholder which effectively reduce premium payments, hence policies paying dividends, all other factors equal, are expected to be preferred by consumers. Policies promising dividend payments added $18.98 to gross single premiums in the sample of whole life policies.

2. Cash value: Since the cash value is a potential return to the policyholder, consumers are expected to prefer policies with higher cash values and to be willing to pay more for such policies. Supporting this idea, an additional dollar of cash value at age 65 added $0.21 to gross single premiums.

3. Effective loan interest rate: Higher effective loan interest rates make borrowing from the cash value of a policy more expensive. Consumers, therefore, are expected to prefer policies with lower effective loan interest rates, and those policies will therefore command higher prices. The study results supported this hypothesis. Policies with higher loan interest rates cost more; an additional one percentage point added to the effective loan interest rate reduced the gross single premium by $2.84.

4. Paid up insurance amount: Whole life policies generally include as one of their non-forfeiture options an amount of paid-up insurance. This means that if the policy is canceled the policyholder can take the paid-up insurance amount in place of the cash value. Since consumers likely prefer greater amounts of paid-up insurance, it was expected that larger amounts of paid-up insurance per $1000 of protection, all other factors equal, would be related to higher policy prices. However, in the sample of whole life policies an additional dollar of paid-up insurance at age 65 decreased the gross single premium by $0.17.

Table 1. Factors explaining differences in prices of whole life insurance policies

Policy price measured by the gross single premium per $1,000 of protection (mean price for sample = $130.73)

1. The payment of dividends increases the gross single premium by $18.98.

2. An additional dollar of cash value at age 65 increases the gross single premium by $0.21.

3. An increase in the effective loan interest rate by one percentage point decreases the gross single premium by $2.84.

4. An additional dollar of paid-up insurance at age 65 decreases the gross single premium by $0.17.

5. An increase in the minimum face value amount necessary for settlement option selection by $1000 decreases the gross single premium by $2.52.

6. An increase in the minimum interest rate paid on settlement options by one percentage point increases the gross single premium by $6.78.

7. The presence of a provision stating that future premium payments could be reduced increases the gross single premium by $9.89.

8. Policies issued to smokers increase the gross single premium by $6.75.

9. An increase in the face amount of the policy by $1000 decreases the gross single premium by $0.23.

10. A financial risk rating by the A. M. Best Co. of under A+ decreases the gross single premium by $8.74.

11. An increase in the issuing company's assets by $10,000 increases the gross single premium by $0.09.

12. An increase in the issuing company's average investment rate of return by one percentage point increases the gross single premium by $2.73.

Source: [10]

5. Minimum amount necessary for settlement option selection: Most life insurance companies will honor the policyholder's settlement option selection if the policy face amount is greater than a minimum amount. Since a lower minimum amount allows more policyholders to have their settlement options honored, it is expected that the average consumer will prefer lower minimum amounts and be willing to pay more for policies offering lower minimum amounts. This expectation was supported by the results; an increase in the minimum face value amount necessary for settlement option selection by $1000 decreased the gross single premium by $2.52.

6. Minimum interest rate paid on settlement options: Policies with higher minimum interest rates guarantee larger minimum settlement payments; hence, such policies are more valuable and should command higher prices. Indeed, an increase in the minimum interest rate paid on settlement options was found to increase the gross single premium by $6.78.

7. Future premiums can be reduced: A contract provision stating that future premiums can be reduced is expected to be valued by consumers, and policies with such a provision should command a higher price. Such policies were more expensive in the sample of whole life policies, with the provision increasing the gross single premium by $9.89.

8. Smokers: Since smokers face a higher probability of death than non-smokers, policies issued to smokers, all other factors equal, should be more costly. The study found that policies issued to smokers increased the gross single premium by $6.75.

9. Face value amount: Fixed company costs per $1000 of face value amount usually decline as the policy face value amount increases. The study did in fact find that the gross single premium declined by $0.23 for an increase of $1000 in face value amount.

10. A. M. Best Co. risk rating: The A.M. Best Co. measures the financial stability of an insurance company on a scale of A+ to C. [4]. If consumers prefer, and are willing to pay more for policies issued from less risky companies, then policies from higher rated companies will command higher prices and policies from lower rated companies will be sold at a discount. Conforming to this expectation, a company rating of less that A+ decreased the gross single premium by $8.74.

11. Company Assets: Consumers may expect that policies issued from larger companies, as measured by the dollar value of the company's assets, are less risky; therefore, consumers would be willing to pay more for policies issued from companies with a larger dollar value of assets. The results supported this expectation. An increase in the issuing company's assets by $10,000 increases the gross single premium by $0.09.

12. Company investment rate of return: Companies earning a higher rate of return on their investments improve their ability to meet claims. If consumers perceive this, then companies earning a higher investment rate of return will be viewed as less risky and will command a higher price. Indeed, an increase in the issuing company's average investment rate of return increases the gross single premium by $2.73.

In summary, this analysis supports the general idea that whole life insurance policy prices differ not only due to differences in dividend and cash value provisions, but also due to differences in contract provisions and company characteristics related to the financial risk of the issuing company. These factors were able to account for over 80 percent of the price differences in the sample of whole life policies.

Term Policy Analysis

A sample of term policies marketed in North Carolina was also analyzed to see what impact contract provisions and company risk characteristics have on price (as measured by the gross single premium). The results are summarized in Table 2. It should be noted that term policies do not include a cash value component. Therefore, a cash value factor and a loan interest rate factor were not included in the term policy analysis.

As can be seen from Table 2, many fewer factors were found to affect term policy prices than affected whole life policy prices. In particular, factors related to settlement options provided by the policy and related to financial risk characteristics of the issuing company were not found to significantly affect the prices of the sample of term policies.

We can speculate why fewer contract provisions and company risk characteristics were related to term policy prices. Since term policies are less complex and less costly than whole life policies, consumers may evaluate that the costs of assessing differences in contract provisions and company risk characteristics between term policies are greater than the expected benefits derived from potential savings on price. In addition, financial failure of a life insurance company means a greater loss for whole life policyholders, who lose both protection and savings (cash value), than for term policyholders, who lose only protection. This may partially explain the insensitivity of term price to company risk factors.

Table 2. Factors explaining differences in prices of term policies.

Policy price measured by the gross single premium per $1,000 of protection (mean price for sample = $45.92)

1. The payment of dividends increases the gross single premium by $5.08.

2. The presence of a provision stating that future premium payments could be reduced increases the gross single premium by $51.82.

3. Policies issued to smokers increase the gross single premium by $7.20.

4. An increase in the face amount of the policy by $1000 decreases the gross single premium by $0.14.

5. An increase in the issuing company's lapse rate by one percentage point increases the gross single premium by $0.59.

Source: [10]

IMPLICATIONS FOR REGULATORS AND CONSUMERS

Several implications can be drawn from this analysis of price differences in life insurance policies. The implications are disucssed separately for state regulators and for consumers.

Regulators

State insurance departments or commissions regulate various aspects of the life insurance market, including price disclosure requirements. Based on the general findings of previous studies of wide price dispersion for similar life insurance policies, consumer advocates and others have recommended that regulators impose stricter price disclosure regulations, including the disclosure of price indices such as the Surrender Cost Index and Linton Yield [6]. These recommendations have been directed particularly at whole life policies.

The implication of the whole life policy analysis reported here is that price differences between whole life policies can be accounted for, to a substantial degree, by differences in contract provisions and company financial risk characteristics, in addition to differences in dividend and cash value provisions. Since the recommended price indices only account for dividend and cash value provisions, such indices are misleading and provide an inaccurate representation to the consumer of value of a whole life policy. In fact, the whole life policy analysis implies that the gross single premium, or, in the case where premium payments are constant, the periodic (e.g., annual) premium, provides a better "index" of the worth of the policy. This is the expected result if the life insurance market is subject to competitive forces. Therefore, price disclosure regulations, particularly for whole life policies, are unnecessary.

Consumers

Since the whole life policy analysis implies that policy prices are influenced by contract provisions and company risk characteristics, consumers are advised to note these factors when comparing policies. Just as the value of a house will be influenced by the presence or absence of central air conditioning, the type of heating system, and the quality of carpet (and many other factors), so, too, will the whole life insurance policy's price be influenced by its various characteristics. Thus, if a particular contract provision is not desired in a policy, don't pay for it! Furthermore, if the financial risk associated with the issuing company is not important to a consumer, then that consumer would likely save money by purchasing a policy from a higher risk company.

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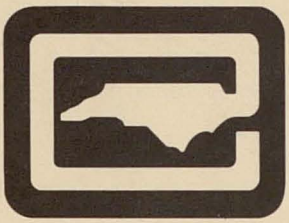

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