

A Demutualization Proposal to Alleviate the Negative Spreads of Life Insurers

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1. Introduction

The failures of Chiyoda Life and Kyoei Life in October brought the tally of failed life insurers to four in just this fiscal year — and six counting from Nissan Life's failure in 1997.

While banks have been suffering from asset erosion due to problem loans, life insurers have been afflicted by a structural problem of deteriorating earnings caused by negative spreads. Under ultra low interest rates, actual asset management returns of approximately 2% have consistently under-performed scheduled yields promised in individual insurance policies and annuities in force (averaging approximately 4%).

Even financially sound life insurers are struggling with negative spreads, a problem that extends beyond the scope of management. This problem, combined with the separate earnings related problem of declining policies in force, are steadily eroding the financial soundness of life insurers. A swift and effective remedy is increasingly crucial to their survival.

Meanwhile, the Financial Big Bang has stimulated competition and alliances across industry boundaries, enhancing the need to bolster equity capital. Under these conditions, some observers believe that demutualization is a pressing issue for life insurers.

Although the revision of the Insurance Business Law in June defined technical guidelines for demutualization, life insurers thus far have not moved ahead. The main obstacle is that given the massive negative spreads, the stock market may be unreceptive to IPOs of life insurers.

In this paper, we present a demutualization proposal that addresses both these problems by alleviating the negative spread problem.

2. The Demutualization Proposal

Under the present Insurance Business Law, when a life insurance company demutualizes, it must allocate shares to policyholders in correlation with their contribution to net assets. Since negative-spread policies make a negative contribution, they are not eligible for any share allocations.

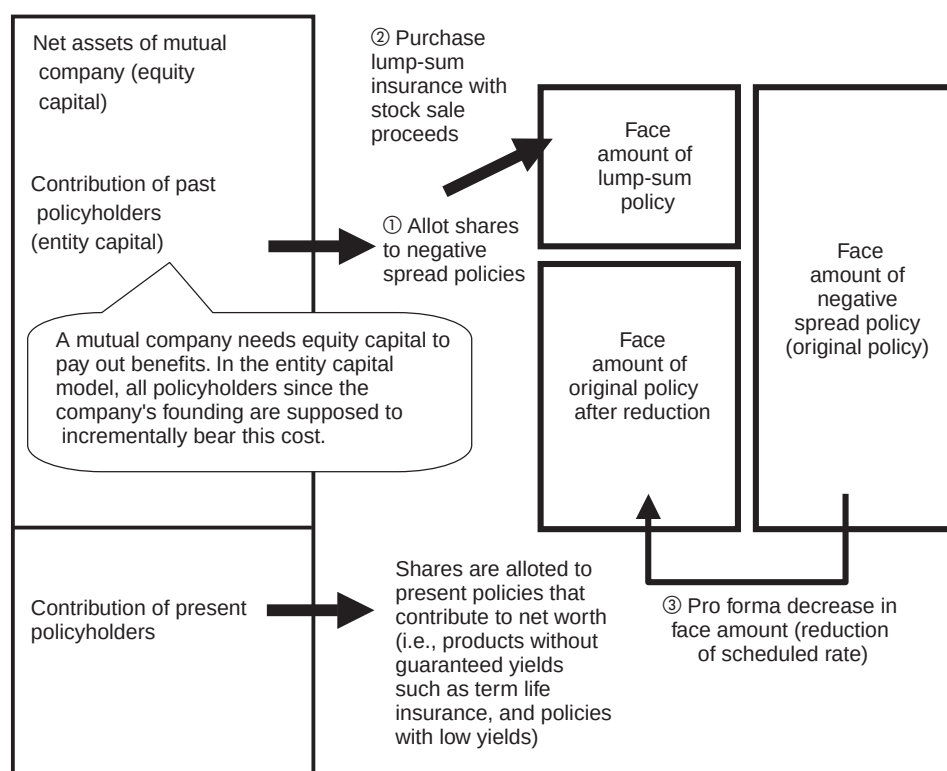
However, if we trace the source of net assets, the bulk consists of the accumulated contributions of previous policyholders. These expired policies have helped mutual insurance companies sustain a stable insurance business.

In demutualization cases in the U.S. and Europe, present policyholders have been allocated shares based not only to their contribution to net assets, but to the accumulated contributions of past policyholders (entity capital) in the form of a “windfall.”

Our proposal takes advantage of this windfall to alleviate the negative spread problem (Figure 1). The proposal’s main points are as follows.

1. For policies with a negative spread, shares are allocated in proportion to the severity of the policy’s negative spread. This allocation is funded by the accumulated contribution of past policyholders. Needless to say, present policyholders who are contributing to net assets are allocated shares in proportion to their contribution.
2. The shares allocated to negative-spread policies are collectively sold as odd lot shares according to the method introduced in the revised law, and policyholders then use the sale proceeds to purchase lump-sum insurance.
3. The lump-sum insurance reduces the face amount of negative-spread policies (by reducing the guaranteed yield). However, while the face amount is lower, the actual benefits received by the policyholder are exactly equal to the original face amount (because the lump-sum insurance bought with the stock sale proceeds offsets the reduction to the original policy). Holders of negative-spread policies thus are not disadvantaged by this scheme. (And while the lump-sum insurance premium is directly credited to the policy reserve in question, the amount returned if the policy is canceled is the same as in the original policy. Thus the same surrender profit occurs to the insurer as before.)

Figure 1 The Demutualization Proposal



3. A Simulation of the Proposal

The key point of the proposal is the size of the effect in alleviating negative spreads. Let us consider the hypothetical case of life insurer A.

Reserve on balance sheet for individual insurance policies and annuities: ¥30 trillion

Duration: 16 years

Real net assets at market value (after taxes): ¥3 trillion

Of which, amount contributed by present policyholders: ¥1 trillion

Accumulated contribution of past policyholders: ¥2 trillion

Shares corresponding to the ¥2 trillion accumulated contribution of past policyholders (2/3 of the total shares) are allocated to negative-spread policies, and the sales proceeds of these shares are counted as the life insurer's premium income for lump-sum insurance. While the amount of sales proceeds depends on the share price, our simulation uses the price to book ratio.

Using k to denote sales proceeds (and the lump-sum insurance premium), and t to denote the tax rate (36%), we have:

$$\text{Total market value} = k \times 3/2$$

$$\text{Real net assets (after tax)} = \text{¥3 trillion} + (1-t) k$$

$$\text{PBR} = (k \times 3.2) / [3 + (1-t) k]$$

Solving for k ,

$$k = (3 \times \text{PBR}) / (1.5 - 0.64 \times \text{PBR})$$

The PBR is approximately 0.8 in demutualization cases of U.S. life insurers, and around 0.5 among major non-life insurers in Japan (Figures 2, 3).

Assuming that investors buy shares at $\text{PBR} = 0.8$, we have $k = \text{¥2.4 trillion}$ ($\text{¥3.6 trillion} / \text{¥4.5 trillion}$). Thus ¥2.4 trillion is the premium income for lump-sum insurance, and added directly to reserves on the balance sheet (reserves increase 8% from ¥30 trillion to ¥32.4 trillion).

Assuming that insurance policies have a duration of 16 years, from the definition of duration (the change in a bond's price when the interest rate changes 1%), an 8% increase in reserves would correspond to a 0.5% decrease in the guaranteed yield.

Thus in the first year, company A's guaranteed yield expense decreases by ¥150 million ($\text{¥30 trillion} \times 0.5\%$), reducing the negative spread burden by an equal amount (also, note the additional advantage of gains from cancelled policies mentioned earlier).

While the simulation makes some bold assumptions, it nonetheless shows that the proposal will have at least some effect in alleviating the negative spread.

Of course, the effects of demutualization will not all be positive; as we show below, one of the new burdens to emerge is shareholder dividends.

Figure 2 PBR of U.S. Life Insurers at the Time of Demutualization

Company	Date	PBR
Equitable	July 1992	0.62
MONY	November 1998	0.69
John Hancock	January 2000	1.11
MetLife	April 2000	0.75

Source: Salomon Smith Barney

Figure 3 PBR of Non-Life Insurers (end of March 2000)

	Real net assets	Market valuation	PBR
Tokio Marine & Fire	¥ 2696.9 bil.	¥ 1634.9 bil.	0.606
Mitsui Marine & Fire	¥ 1106.3 bil.	¥ 360.0 bil.	0.325
Sumitomo Fire & Marine	¥ 983.5 bil.	¥ 351.0 bil.	0.357
Nippon Fire & Marine	¥ 633.1 bil.	¥ 144.4 bil.	0.228
Yasuda Fire & Marine	¥ 1066.7 bil.	¥ 413.0 bil.	0.387
Nissan Fire & Marine	¥ 327.3 bil.	¥ 70.9 bil.	0.217
Nisshin Fire & Marine	¥ 144.2 bil.	¥ 50.0 bil.	0.347
Chiyoda Fire & Marine	¥ 400.2 bil.	¥ 108.6 bil.	0.271
Dowa Fire & Marine	¥ 394.4 bil.	¥ 102.1 bil.	0.259
Nichido Fire & Marine	¥ 798.3 bil.	¥ 199.1 bil.	0.249
Dai-Tokyo Fire & Marine	¥ 492.5 bil.	¥ 114.4 bil.	0.232
Koa Fire & Marine	¥ 312.7 bil.	¥ 72.2 bil.	0.231
Fuji Fire & Marine	¥ 239.5 bil.	¥ 57.5 bil.	0.240
Taisei Fire & Marine	¥ 98.1 bil.	¥ 16.9 bil.	0.172
Total of 14 companies	¥ 9693.8 bil.	¥ 3695.0 bil.	0.381

Note: Real net assets = Capital + Contingency reserve + Reserve for market risk + 64% of unrealized capital gains from securities

Source: Company disclosure materials

4. Comparison with Alternative Proposals

(1) Simple Demutualization

Compared with the simple demutualization method assumed under present law (which allocates all shares to present policyholders based on their contribution to net assets), our proposal has a clear advantage — simple demutualization does not cause any positive earnings effect.

The question then arises, who stands to benefit from the positive earnings effect? To begin with, it increases the dividends paid to policyholders and enables lower premiums. At the same time, the improved price competitiveness helps to win new policies and renew existing policies. Thus premiums are reduced for present and future policyholders, and shareholders benefit from the company's

strengthened competitiveness.

(2) Continuation as a Mutual Company

Comparing our proposal with the case where a company chooses to retain its mutual organization is a more difficult matter. This is because demutualization has both positive and negative aspects. The positive aspects include:

- access to external financing to boost equity capital
- ease of conducting M&A activities and forming alliances
- chance to reform corporate culture and practices (i.e., introducing stock options)

On the negative side, there may be:

- possible conflicts of interest between policyholders and shareholders
- risk of acquisition and possible loss of management stability
- time and cost involved in the demutualization process

However, a full comparison is outside the scope of this paper. Below we compare only the impact on annual earnings.

As the simulation above showed, our proposal produces improvements in earnings every year. The improvement is largest immediately after demutualization, and diminishes gradually thereafter.

On the other hand, demutualization entails the distribution of dividends to shareholders. When we apply the recent dividend yield in the Tokyo Stock Exchange (0.7-0.8%) to the ¥3.6 trillion market valuation in our example, the dividend distribution amounts to almost ¥30 billion, or approximately ¥40 billion on a pre-tax basis. If the company performs well, pressure will inevitably mount for a dividend increase (of course, investors demand not only dividends but ongoing efforts by the company to improve its fundamentals).

Eventually, the two trends — a diminishing earnings growth effect, and pressure to raise dividends — may create a negative net effect. Thus when demutualizing, companies will need not only to consider the advantages and disadvantages mentioned above, but these net quantitative effects as well.

5. Conclusion

The basic concept behind our proposal is to use the accumulated contributions of past policyholders (entity capital) not as a windfall distribution to present policyholders, but to reduce the negative spread plaguing life insurers.

As stated at the beginning, our approach to demutualization is an irregular one that clashes with the principle under present law of allocating shares in correlation with contributions. In fact, our demutualization approach has never occurred either among life insurers in the West or financial cooperatives in Japan.

However, the demutualization of Japan's life insurers is an issue that cannot be discussed without reference to negative spreads, a problem that does not exist in the West. Japan needs a demutualization scheme suited to its particular circumstances.

Of course, our proposal is not without limitations, and is not necessarily appropriate for all mutual life insurers. At a minimum, investors require that a company have positive real net assets, as measured by the market value of its assets and liabilities.

In addition, there is the problem that the negative spread reduction effect will be affected by the share price at the time of demutualization. This problem will need to be addressed by, for example, conducting the public offering in several phases.

The negative spread problem is the greatest problem facing life insurers today. This paper will have served its purpose if it stimulates discussion toward finding solutions.