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INTERNATIONAL NEWS

NEWSLETTER OF THE INTERNATIONAL SECTION

contents

Deferred Bonus Reserves

by William R. Horbatt & C. Daniel Stubbs, Jr.

1. Summary

Legal minimum policyholder participation requirements create a timing issue for companies reporting income using United States Generally Accepted Accounting Principles (U.S. GAAP) whenever assets are valued differently under local legal standards from U.S. GAAP. Countries like France, Germany, Italy and Switzerland mandate minimum policyholder bonuses (typically referred to as "dividends" in U.S. terminology) based upon company investment income that frequently differs from the investment income reported under U.S. GAAP.

For example, U.S. GAAP may require that an asset be valued at market value while the local standards specify book value. An unrealized capital gain could artificially increase U.S. GAAP equity by the full amount of the gain unless a provision were made in the financial statement to reflect the fact that a portion of this gain will ultimately be returned to policyholders under minimum bonus requirements. In this case, companies follow the guidance contained in paragraph 42 of Statement of Financial Accounting Standard (SFAS) 60 that states, "*the policyholders' share of net income … that cannot be distributed to stockholders shall be excluded from stockholders' equity*" by establishing a reserve.

The appropriate accounting treatment for the opposite case, when local asset values exceed U.S. GAAP, is much less clear. We are aware of both potential approaches being taken—in one case, reducing policy reserves to reflect the probability that less will ultimately be paid—and in the other case, allowing the timing difference to stand until it is eventually settled when assets are liquidated. This article will provide background on local minimum policyholder participation practices, present relevant accounting issues and discuss the two different accounting interpretations and make a recommendation as to which we feel is most appropriate at this point in time.

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Editor's Note

by Randy Makin

In his song, "Heaven," Michael English has a verse that runs,

Friends that don't leave you / Smiles that don't fade
Nobody's hurting / No one's afraid
No hungry children / Loved ones don't die
No sad farewells / There'll be no more goodbyes.

But this is a fallen world, and goodbyes are a big part of our lives. My wife and I try to enjoy each visit with older members of our families, reminding ourselves with our usual refrain, "There are no guarantees." This is an easier goodbye, if there is such a thing, but I will miss working with so many dear friends on a close basis. With this issue I will be stepping down as editor, and will be succeeded by Catherine Lyn of Watson Wyatt in Toronto, Canada. Cathy will be an excellent editor for this newsletter, and she will be eager to receive your articles at *catherine.lyn@watson wyatt.com*. Michelle John of Sun Life of Canada, London, England will be the assistant editor.

In this edition of *International News*, we have an article by Tom Herget on meetings in Chicago with a Chinese/Taiwanese delegation, who wished to learn more about supervision of insurance. From Korea, Chi Hong An has contributed an article (reprinted with the kind permission of Milliman Global Insurance) on Korean life insurance market developments. Jose Berrios has put in an article elaborating the use of dynamic solvency testing in both life and nonlife business in Mexico, and Valerie Lopez-Zinzer has outlined key considerations on acquiring a U.S. operation.

Bill Horbatt has really done yeoman's work this time, having drawn up one article on financial assumptions being used for embedded value, and one on how to handle certain European contracts with significant savings elements under GAAP. He has also written up a proposal for an International Accounting Corner. We would welcome any questions or comments on international accounting in this new feature of our newsletter. This is a forum for learning from one another! Bill has agreed to field questions and articles and forward them to Cathy for publishing. His e-mail is Horbatt@ActuarialConsortium.com.

Finally, I'd like to thank some of the many who have helped with scouting articles, encouraging writers, encouraging me, especially chairpersons Yiji Starr (Hey, Yiji, where's my chairperson's corner for this issue?), Shumei Kuo, Jim Toole and Angelica Michail. And I want to thank Kevin Law for nominating me to do this job. It has meant quite a bit to me.

Goodbye. □

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2. Deferred Bonus Reserves

Before discussing the special case of negative deferred bonus reserves, it is appropriate to describe the legal constraints that create the need for such reserves and the well-accepted accounting principles that are applied when establishing (positive) deferred bonus reserves.

2.1 Minimum Policyholder Participation

European products subject to minimum policyholder participation are general account products with a significant savings element, thus legal minimum policyholder participation requirements focus on sharing investment income with policyholders. At one extreme, the Italian limits are quite rigid with minimum bonuses set equal to 80 percent of the investment income rate from the prior calendar year applied to every policy. At the other extreme, the French calculation determines a minimum bonus based upon modified statutory net income excluding 15 percent of investment income and permits the company to allocate it to contracts at the company's discretion over a seven-year period. In either case, every contract has a guaranteed minimum interest rate that may not be broached.

The participation percentage varies by country and actual bonuses credited are frequently even higher. For example, Germany set 90 percent of investment income as its threshold and industry practice is to pay about 95 percent.

2.2 Accounting Background: SFAS 60 Paragraph 42 and other Accounting Literature

Paragraph 42 of SFAS 60: *Accounting and Reporting by Insurance Enterprises,* gives explicit guidance on the treatment of surpluses that emerge on funds underlying policy liabilities:

> *42. If limitations exist on the amount of net income from participating insurance contracts of life insurance enterprises that may be distributed to stockholders, the policyholders' share of net income on those contracts that cannot be distributed to stockholders shall be excluded from stockholders' equity by a charge to operations and a credit to a liability relating to participating policyholders' funds in a manner similar to the accounting for net income applicable to minority interests.*
>
> *Dividends declared or paid to participating policyholders shall reduce that liability; dividends declared or paid in excess of the liability shall be charged to operations.*
>
> *Income-based dividend provisions shall be based on net income that includes adjustments between general-purpose and statutory financial statements that will reverse and enter into future calculations of the dividend provision.*

Based upon the first sentence of this paragraph, affected companies establish a deferred benefit reserve (DBR) whenever U.S. GAAP asset values exceed bonus-related values. Frequently the calculation is simplified by applying the participation rate (80 percent for contracts subject to the legal minimum in Italy) to the difference in asset valuations.

Based upon the second sentence of this paragraph, bonuses credited in excess of legal minimums—such as the practice in Germany —are charged to income in the year they are credited.

The final sentence providing guidance draws an analogy to the approach then used for calculating income tax provisions in U.S. GAAP statements; the discussion of SFAS 109 in Section 3.2 below points out that the approach for calculating income taxes subsequently changed.

One decade after this statement was issued, SFAS 115: *Accounting for Certain Investments in Debt and Equity Securities*, was issued in 1993. SFAS 115 effectively required life insurance companies to bifurcate their treatment of assets having separate treatment in the income statement and balance sheet with the differences flowing through equity. The specific treatment of the DBR reserve depends upon management's classification of the assets using the bifurcation treatment under SFAS 115:

- For assets designated as trading assets or as assets held to maturity, the DBR is a policyholder benefit reserve in balance sheet liabilities and changes in the reserve are reflected in the income statement.
- For assets designated as being available for sale, the reserve is split into a DBR and a "shadow DBR," the sum of which is held as a liability in the balance sheet. The DBR reflects differences between the local fund value and the U.S. GAAP book value, while the shadow DBR reflects differences between the U.S. GAAP book value used for income statement purposes and the market value of

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European products subject to minimum policyholder participation are general account products with a significant savings element, thus legal minimum policyholder participation requirements focus on sharing investment income with policyholders.

assets in the U.S. GAAP balance sheet. Changes in the DBR are reflected in the income statement, while changes in the shadow DBR are included in other consolidated income (OCI) in the reconciliation of equity between year-ends.

Notice that although accounting treatment of insurance policies has also evolved with the promulgation of SFAS 97: *Accounting and Reporting by Insurance Enterprises for Certain Long-Duration Contracts and for Realized Gains and Losses from the Sale of Investments* issued in 1987 and SFAS 120: *Accounting and Reporting by Mutual Life Insurance Enterprises and by Insurance Enterprises for Certain Long-Duration Participating Contracts* issued in 1995, both of these more recent statements of financial accounting standards are silent on this subject, so the direction provided by SFAS 60 paragraph 42 remains in effect.

2.3 Examples of DBR and Shadow DBR

A simple example, shown in Figure 1, illustrates the treatment above. Let us assume that we are looking at an Italian company with a mature bond portfolio and all contracts subject to the 80 percent legal minimum policyholder participation for investment income.

In this case, the market value of the assets exceeds their book value since market interest rates have declined after most of the assets were purchased, thereby creating an unrealized gain that is recognized in the U.S. GAAP balance sheet (the assets are considered to be "available for sale" as is normally the case). Fully 80 percent of this unrealized gain is held as a shadow deferred benefit reserve (shadow DBR) and the balance increases stockholder equity.

The example can be modified slightly to create a DBR. Under Italian fund accounting conventions, assets are recorded at the average value of all similar assets purchased during the same calendar year. On the other hand, U.S. GAAP permits each asset to be valued at its own individual purchase price. Assuming that certain assets have been sold that result in U.S. GAAP book value exceeding Italian fund accounting values by 10,000, the following situation occurs, as shown in Figure 2.

Notice that U.S. GAAP balance sheet equity remains the same (since the market value of the asset portfolio did not change), but that 2,000 of the equity has now flowed through the income statement as a result of the change in U.S. GAAP asset book values (offset by 2,000 less flowing through OCI in the reconciliation of equity).

Figure 1

	Italian Fund Accounting	U.S. GAAP Book Value	U.S. GAAP Balance Sheet Value
Assets	1,000,000	1,000,000	1,100,000
Policy Reserves	1,000,000	1,000,000	1,000,000
DBR	N/A	0	0
Shadow DBR	N/A	N/A	80,000
Equity	0	0	20,000

Figure 2

	Italian Fund Accounting	U.S. GAAP Book Value	U.S. GAAP Balance Sheet Value
Assets	1,000,000	1,010,000	1,100,000
Policy Reserves	1,000,000	1,000,000	1,000,000
DBR	N/A	8,000	8,000
Shadow DBR	N/A	N/A	72,000
Equity	0	2,000	20,000

Figure 3

	Italian Fund Accounting	U.S. GAAP Book Value (ConservativeApproach)	U.S. GAAP Balance Sheet Value (Best (Estimate Approach)
Assets	1,000,000	990,000	990,000
Policy Reserves	1,000,000	1,000,000	1,000,000
DBR	N/A	0	-8,000
Shadow DBR	N/A	N/A	0
Equity	0	-10,000	-2,000

3. Accounting Approaches when U.S. GAAP Asset Values Exceed Local Values

Two approaches have been taken when the opposite situation occurs, U.S. GAAP assets being exceeded by local country basis asset values.

- The "conservative" approach is to follow the treatment of minority interests explicitly mentioned at the end of the first sentence of paragraph 42 of SFAS 60, which is to ignore differences that result in a negative adjustment to liabilities. This posture goes to the heart of the conservatism principle: never understate liabilities.

- The alternative approach, more consistent with the conservatism principle, is to reduce liabilities whenever it is demonstrable that the asset valuation difference will be reversed by payments at values that are lower than the liability held. This approach is referred to as the "best-estimate" approach in this article.

Another simple example can be created from the Italian situation resulting from the practice of not recognizing impairments in Italian policyholder fund accounting. Assume that U.S. GAAP has recognized an impairment in asset values due to a credit rating downgrade of certain bonds in the previous example, and that this impairment will be recovered by reducing policyholder bonuses in future years after the bonds are sold. This is shown in Figure 3.

Stockholder equity is temporarily reduced by the 10,000-asset impairment under the conservative approach, but is reduced by only the 2,000 stockholder's share of the loss under the best-estimate approach. Note that the example assumes that the difference in equity caused by the difference in asset valuations is temporary and will be eliminated once assets are liquidated and investment losses are reflected in reduced policyholder bonuses. If this difference were not temporary, for example if the losses could not be recovered due to the effects minimum interest guarantees, then both approaches would result in the same equity values, -10,000.

3.1 Conservative Approach Toward Temporary Timing Differences

Under the conservative approach to situations that would otherwise result in a negative DBR, the DBR is set at a "floor" value of zero.

A justification for this approach starts with the reference to minority interests in SFAS 60 ,paragraph 42. This leads one to Accounting Research Bulletin *(ARB) 51: Consolidated Financial Statements,* which governed minority interests at the time when SFAS 60 was issued. In particular, paragraph 15 of ARB 51 states:

> *15. In the unusual case in which losses applicable to the minority interest in a subsidiary exceed the minority interest in the equity capital of the subsidiary, such excess and any further losses applicable to the minority interest should be charged against the majority interest, as there is no obligation of the minority interest to make good such losses. However, if future earnings do materialize, the majority interest should be credited to the extent of such losses previously absorbed.*

One can then construct the argument that the policyholder's equity capital in the company is zero, so that any losses applicable to the policyholder's interest should be charged against the company's equity.

3.2 Best-Estimate Approach Toward Temporary Timing Differences

Although few changes were implemented during the 23-year period after ARB 51 was issued in 1959, U.S. GAAP principles have evolved rapidly since the release of SFAS 60 two decades ago in 1982. For example, SFAS 109: *Accounting for Income Taxes* issued in 1992 addressed temporary (timing) differences relating to income taxes by providing for deferred tax assets. This SFAS transformed the calculation of income tax provisions from an income statement-based approach to a balance sheet-based approach. When explaining the basis for their conclusions in this statement the Financial Accounting Standards Board (FASB) referred to Statement of Financial Concepts, *CON 6: Elements of Financial Statements*, published in 1985.

The temporary timing differences that occur due to the different asset valuations for local accounting versus U.S. GAAP accounting appear to be quite similar to the timing differences that are the subject of SFAS 109. As such, it may be appropriate to consider the same sources used by the FASB for their conclusions. In particular, paragraph 26 of CON 6 defines the essential elements of an asset:

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26) An asset has three essential characteristics:

(a) it embodies a probable future benefit that involves a capacity, singly or in combination with other assets, to contribute directly or indirectly to future net cash inflows,
(b) a particular entity can obtain the benefit and control others' access to it, and
(c) the transaction or other event giving rise to the entity's right to or control of the benefit has already occurred.

Assets commonly have other features that help identify them—for example, assets may be acquired at a cost and they may be tangible, exchangeable or legally enforceable. However, those features are not essential characteristics of assets. Their absence, by itself, is not sufficient to preclude an item's qualifying as an asset. That is, assets may be acquired without cost, they may be intangible, and although not exchangeable they may be usable by the entity in producing or distributing other goods or services. Similarly, although the ability of an entity to obtain benefit from an asset and to control others' access to it generally rests on a foundation of legal rights, legal enforceability of a claim to the benefit is not a prerequisite for a benefit to qualify as an asset if the entity has the ability to obtain and control the benefit in other ways.

The timing differences in policyholder bonuses caused by local asset values exceeding U.S. GAAP asset values appears to satisfy the three criteria above whenever it can be demonstrated that the eventual liquidation of assets (by sale or asset maturity) will result in policyholder bonuses being reduced by a similar amount.

3.3 Example of Best Estimate Approach

Continuing the prior example, let us assume that the fund earns 6 percent and that the guaranteed minimum interest rate for all contracts is 4 percent. The company could liquidate the assets causing the temporary timing difference, incurring a capital loss that would reduce the fund yield to 5 percent, which is above the 4 percent contractual minimum guarantee. In other words, a 1,000,000 current reserve is not required to meet contractual requirements since 992,000 would suffice when bonuses are reduced to recover the policyholder's 80 percent share of the 10,000 unrealized capital losses. Applying the three criteria in CON 6 to this situation yields:

a) Once the 10,000 timing difference reverses, which could be as soon as the next year, bonuses would be reduced in the subsequent year by 8,000, which—in turn—reduces future cash outflows from surrenders, etc. This is definitely a future benefit.

b) The insurer alone obtains the benefit from the reversal of the timing difference (by crediting less bonus) and the insurer alone controls access to it by its ability to eliminate the timing difference (by disposal of the assets involved).

c) The asset sale that generates the timing difference has already occurred.

Note that the facts of the situation determine whether an economic benefit can be demonstrated. For example, if the fund were earning only the minimum guarantee of 4 percent in the previous example, then minimum contractual guarantees would result in the company, rather than the policyholders, bearing the cost of realizing the capital loss in the portfolio. In this case, a reserve reduction would not be warranted.

Note also that the timing difference is being reflected as a reserve reduction instead of holding an asset, since this more accurately reflects the fact that it will reduce the ultimate payout of cash.

4. Comparison of Approaches when Local Assets Exceed U.S. GAAP Asset Values

The two different approaches yield different financial statement values only when (a) local asset values exceed US GAAP asset values and (b) some of this difference is recoverable by reducing future policyholder payments, so the focus of this discussion turns to precisely this situation. Next, since the difference arises from the reference to minority interests in paragraph 42 of SFAS 60, the first (and perhaps only) question that arises is to what degree the policyholder interest in accumulated surplus is analogous to a minority stockholder's interest. APB 51, which was referred to in section 3.1 of this article, provides extensive guidance on accounting for minority interests.

Most of APB 51 concentrates on practical issues when allocating financial results back to the majority owner of an enterprise that also has minority owners (for example, a publicly traded company where another enterprise has purchased a controlling stake on the open market). The argument behind the conservative

approach relies upon the following portion of the quote from APB 51 in section 3.1 of this article (emphasis added):

> *15. In the unusual case in which losses applicable to the minority interest in a subsidiary exceed the minority interest in the equity capital of the subsidiary, such excess and any further losses applicable to the minority interest should be charged against the majority interest, as there is no obligation of the minority interest to make good such losses…*

This situation could occur, for example, if an insurance company purchased 90 percent of the shares of a third party administrator (TPA) and then marketing expenses outstripped all equity in the TPA. Clearly, the insurance company would be hit with the full amount of any loss after writing down the minority owner's stake in the enterprise. In many cases the majority owner could even be expected to recapitalize the TPA in order to meet other business objectives, but business failure remains a realistic possibility.

The negative deferred benefit reserve situation is dramatically different from the draconian situation anticipated in paragraph 15 of APB 51. In particular, the conditions that would generate negative deferred benefit reserves occur in healthy ongoing operations where it is most likely that the policyholders will be obligated to repay the loss through reduced future bonuses. In such cases, one may argue that the statement "there is no obligation of the minority interest to make good such losses" is not appropriate and thus the treatment in the paragraph is not applicable.

This interpretation is consistent with later accounting guidance arising from the Financial Accounting Standards Board's (FASB's) Emerging Issues Task Force (EITF). For example, EITF 95-2 states (emphasis added):

> *The Task Force observed that if the net equity of the operating partnership (after the contributions of the sponsor and the REIT) is less than zero, then the initial minority interest is zero unless there is an obligation of the minority interest to make good those losses.*

This statement confirms that a negative minority interest can exist and, consequently, that a negative deferred bonus reserve can exist. The question that remains is whether the policyholders have an obligation to "make good" on the asset losses in question and this is a question of fact, not accounting theory.

5. Conclusion

Although the authors of this article believe the "best-estimate" approach is preferable to the "conservative" approach for situations that could develop a negative deferred bonus reserve, we offer our recommendation to the accounting and actuarial communities to obtain their concurrence or to hear their objections.

The "conservative" approach is a subset of the "best estimate" approach to negative deferred bonus reserves. Thus the two approaches naturally coexist. The requirement to demonstrate that the difference in asset valuations will result in a difference in future policyholder payouts increases the burden of proof on the statement issuers, and ultimately becomes the determinant for accounting treatment. □

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International Accounting Corner

International News is starting a new newsletter column that will be published periodically to allow international actuaries to share their thoughts on practical accounting issues that they face. The topics could relate to U.S. GAAP, IAS, national accounting standards or any other financial reporting framework. The only criterion is that the issue be important to someone. We encourage readers to send articles, letters and comments on prior columns so that this becomes a forum for discussion. Knowing that an actuary's views may differ from his or her employer's, confidentiality will be respected if requested [contact information will be withheld]. For more information, contact William Horbatt at Horbatt@Actuarial Consortium .com. □

Republic of China Delegates Meet Insurance Actuaries in Chicago

by Tom Herget

Taiwan has experienced tremendous economic growth during the last two decades. Consistent with all affluent societies, economic success is accompanied with increased insurance needs for income protection and accumulation of wealth. In response to growing insurance needs, Taiwan has allowed more domestic insurance companies and foreign insurance companies from the United States, Japan and Western European countries to participate in this market of 22 million people. About 30 life insurance companies currently operate in Taiwan.

Chih Hung Chang, Li Chun Chen and Yu Hwa Wang

In April 2004, a team of delegates from China and Taiwan came to the United States to learn more about the valuation and supervision of insurance companies. On the U.S. side, the visit was coordinated by Shirley Shao of the Prudential Insurance Company of America. Shao, also a Society of Actuaries vice president, arranged four meetings. These were held at the Society of Actuaries offices in Schaumburg, PolySystems in Chicago, the National Association of Insurance Commissioners (NAIC) office in Kansas City and at the NAIC's SVO office in New York.

Members of the Chinese/Taiwanese delegation included:

- Ms. Lih-Jue Shih, section chief, Department of Insurance, Ministry of Finance
- Ms. Li-Chun Chen, staff, Department of Insurance, Ministry of Finance
- Mr. Jacob Liang, division chief, MIS Department, Insurance Institute of the Republic of China
- Mr. Chih-Hung Chang, actuarial analyst, Actuarial Department, Insurance Institute of the Republic of China
- Ms. Yu-Hwa Wang, assistant vice president, Actuarial Department, Nan Shan Life Insurance Company
- Mr. Shih-Nin Low, vice president and actuary, Nan Shan Life Insurance Company and board member of the Actuarial Institute of the Republic of China

This article provides highlights of the two days the group spent in the Chicago area.

Day One

On April 5, the delegation met Larry Gorski at the Society of Actuaries' office in Schaumburg, Illinois. Gorski is an actuary with Claire Thinking, Inc. and is the former chief life actuary for the Illinois Department of Insurance (IDOI). The focus of the meeting was on the NAIC Risk-Based Capital formulas (life and P&C).

The U.S. regulatory RBC is being used in Taiwan as the regulatory standard for required capital and the Chinese/Taiwanese delegation was interested in hearing about and discussing the background behind the development of the RBC formula.

The session started with an overview of the U.S. regulatory framework for life insurers. Gorski presented a history of the life insurer RBC formula, including the significant changes that have been made since the first version became effective in 1992. Questions concerning the way in which the life RBC formula is used by regulators—specifically whether the U.S. regulators had developed a manual that explained how to use the RBC formula—led to a discussion of the NAIC Model RBC Law with its action levels and associated company and regulatory actions. A discussion about the impact of NAIC accounting rules on the RBC formulas followed. Other topics of interest included the interest maintenance reserve (IMR) and the different treatment of common stock in the life formula as compared to the P&C formula.

The mechanism for keeping the life formula up to date focused on the role of the American Academy of Actuaries (AAA) Life Capital Adequacy Subcommittee, and the process for moving a recommendation to an actual formula modification was a topic of much interest. Three major changes to the life RBC formula were talked about at length: introduction of the modeling approach to quantify (C-3) interest rate risk, recognition of the Deferred Tax Assets

and Liabilities and the post-tax nature of RBC charges, and, of course, the current project dealing with variable annuity guarantees (C-3 Phase 2). This segued into a discussion of the broad range of input and support provided by the AAA. Gorski shared current AAA Reports dealing with the modeling approach and the Alternative Methodology factors.

During the afternoon, the Chinese/Taiwanese delegation asked questions concerning the requirements imposed by U.S. regulators on stock insurers that market, or have inforce, participating policies. Participants talked about the regulatory framework that exists in Illinois, but Gorski pointed out that the requirements in other jurisdictions may differ.

Bob Meilander, Jay Jaffe, Vincent Tsang, Ted Trenton and Tom Herget

Day Two

The delegates attended a practitioners' forum in Chicago on the second day of their visit. On the agenda were practical issues of the Appointed Actuary concept, United States statutory insurance regulations and solvency monitoring process.

This forum was co-hosted by Tom Herget, executive vice president of PolySystems and SOA Board member, and Vincent Tsang, also of PolySystems. The U.S. practitioners invited to participate were prominent and distinguished actuaries from insurance companies and consulting firms. Their goal was to provide insight and feedback to the delegates from an insurance company perspective.

The U.S. actuaries participating in the meeting were Errol Cramer (Allstate Life), Jay Jaffe (Actuarial Enterprises), Paul Hekman (PolySystems), Cheryl Krueger (CNA), Dan Kunesh (Tillinghast), Don Maves (PolySystems), Bob Meilander (Northwestern Mutual), Ted Trenton (State Farm), and Lone Yee (State Farm).

The members of the Chinese/Taiwanese delegate team expressed their gratitude for the meeting and provided a background on the current Taiwanese insurance market.

From an insurance company perspective, most insurance companies in Taiwan are either very large or very small. There aren't many in the mid-sized range.

Existing inforce insurance contracts are mostly traditional policies. Participating products are becoming increasingly popular. Although there are regulations on the division of profits between shareholders and policyholders, Taiwanese regulators valued insight on monitoring the determination and distribution of divisible surplus for participating business.

To compete for a bigger market share, some foreign insurance companies and smaller domestic insurance companies are offering innovative products such as universal life and unit-linked products embedded with guaranteed minimum death benefit (GMDB) features. As existing Taiwanese insurance regulations are geared toward traditional life policies, members of the delegation questioned the appropriateness of applying existing regulations to these innovative products.

The low interest rate environment is adversely affecting insurance companies in Taiwan. Taiwanese insurance regulators are now focusing on insurance companies' asset-liability management and have introduced the Appointed Actuary requirement to all insurance companies. Due to lack of experience in reviewing reports from Appointed Actuaries, members of the delegation desire input from U.S. regulators and insight from the panel.

The delegation then expressed their specific areas of interest which included:

- The interactions among insurance regulators, SOA and the American Academy of Actuaries (AAA)
- Insurance regulations for participating business
- Reserving for GMDB
- Risk-based capital (RBC) requirements
- Product filing and approval processes
- Auditing
- Electronic datawarehousing for insurance companies

Roles of the SOA and AAA

As a member of the Board of Governors of the Society of Actuaries, Herget talked about the educational, research and professional aspects of the Society. He also covered the Society's

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basic, advanced and continuing education and examination programs, its publications, its research projects and its promotion of high standards for professional performance.

In addition, he explained that the SOA provides opportunities for networking with other actuarial professional organizations (for example, the FCIA of U.K.) around the world. Although SOA members are concentrated in the United States and Canada, many Associates and Fellows are practicing in Asia, Australia, South America and Europe.

Bob Meilander and Errol Cramer explained that the Academy focuses on public policy issues and professionalism. The Academy has formed many working groups (e.g., Variable Annuity Reserve Working Group, Deficiency Reserve Working Group) to work closely with insurance regulators to resolve actuarial issues and to develop insurance regulations for actuarial reserves. Some of the latest achievements

Vincent Tsang, Ted Trenton, Tom Herget, Chih Hung Chang, Chun Chen and Yu Hwa Wang

are the newly adopted Standard nonforfeiture Law for Deferred Annuities, revised Actuarial Guideline 34, Risk-Based Capital Phase I project, etc. If appropriate, members of the Academy provide testimony in congressional hearings regarding insurance industry issues from an actuarial perspective.

To assist actuaries in rendering their professional actuarial services, the Actuarial Standards Board (ASB) of the Academy periodically issues Actuarial Standards of Practice (ASOPs) for the members. These ASOPs are designed to provide high-level guidance rather than prescriptive guidance. However, some regulators prefer the latter. The panel noted that most ASOPs do not address specific laws or regulations.

The timeline for the adoption of a proposed ASOP is approximately two years. The panel emphasized the need for feedback from the industry and other interested parties affected by the proposed ASOP. The existing 41 ASOPs have evolved over two to three decades. Although the current insurance products in Taiwan are not as complicated as the products in the United States, the actuarial profession in Taiwan probably also needs considerable amounts of time to develop its own standards of practice.

The Chinese/Taiwanese delegates wanted specific examples of disciplinary action that have been taken by the Actuarial Board for Counseling and Discipline (ABCD) over the years. The panel did not have detailed information on any specific case, as most resolutions are confidential. The panel did note that most cases of counseling revolved around actuaries accepting assignments outside their province of expertise or by performing substandard actuarial work.

Solvency Monitoring and Actuarial Reserving

Representatives of the U.S. companies provided an overview of their processes for rendering actuarial opinions: a general description of company size and product lines, the staff required, reliance on nonactuarial staff, functions performed, and preparing and filing of the opinion and memorandum (AOM).

The Republic of China's insurance regulators introduced the Appointed Actuary requirement last year. Taiwanese regulators struggle with specifying the appropriate amount of disclosure. The panel indicated that appointed actuaries in the United States generally disclose just the required information. The U.S. practitioners do not want to disclose information that could be used by competitors.

According to the delegation, public accounting firms frequently audit insurance companies in Taiwan. However, the scope of these audits concentrate on compliance with existing laws and regulations and seldom involve risk management and business quality. The panel noted that, in the United States, rating agencies provide a different dimension of oversight and evaluation of company management.

The next discussion topic covered risk characteristics of some U.S. insurance products:

- Variable annuities and equity-based products, once considered to be risk-free to the insurance company, are now embedded with many types of guarantees that are fraught with risk.

- Fixed annuities are subject to disintermediation risk when interest rates increase. Companies may hedge the risk with a combination of product design (e.g., higher surrender charges on new issues), derivatives and selling products with offsetting risk. Most insurance companies are now using dynamic hedging even though it may be costly. Small insurance companies might not have adequate resources to manage the interest rate risk.

- Seasoned fixed annuities with relatively high guaranteed interest rates often generate losses when interest rates stay low for an extended period of time.

- Other discussed products included noncancelable health insurance and long-term care. The former is risky because premiums are guaranteed and are not subject to change even when actual claims are higher than expected. Long-term care policies are risky due to the long-term morbidity risk and lack of experience data.

The Chinese/Taiwanese delegates requested specific examples of companies experiencing or who have experienced financial difficulties. Dan Kunesh of Tillinghast shared his experience in assisting state insurance departments in the supervision of insurance companies that were in financial trouble.

Taiwanese insurance regulators currently utilize some commonly used indices such as IRIS to monitor the financial health of insurance companies. To achieve more in-depth and efficient monitoring, the delegation is also interested in the automation of the audit process.

Participating business

Taiwan's 30 life insurers are all stock companies. Par business is a recent innovation as there are no mutual companies in Taiwan.

Bob Meilander, Ted Trenton and Lone Yee work for two of the largest mutual organizations in the United States and have extensive experience in managing the participating business. Meilander, Trenton and Yee provided a background on the processes for determining and allocating distributable surplus to par policyholders. They discussed how the contribution principle, the three-factor formula, asset shares and experience studies affect the dividend determination process. The panel contrasted the retrospective nature of dividends with the prospective nature of nonguaranteed elements.

It was noted that some (a minority of) companies never change their dividend scales, which may be due to lack of credible data for experience studies. For large mutual companies, dividends are reviewed frequently and are adjusted in accordance with emerging experience. Market competition is also an important factor for determining dividends.

A fair amount of time was devoted to discussing dividend limitations and requirements. A few states such as Illinois, New York and Wisconsin have limitations on allocating participating business' profits to stockholders. These limitations are not significant issues for U.S. stock companies because they generally do not sell participating business. In Taiwan, at least 70 percent of profits attributable to participating business must be paid out as policyholder dividends. In the United States, the Illustration Regulation impacts dividends through the self-support test and the non-lapse supported test.

The panel also highlighted some potential gamesmanship in areas such as allocation of capital gains and losses among participating business. Another area with ample interpretation is the combination of losses on a leading money-losing product with profits on a profitable contract. Such a combination may lower the aggregate profits and hence lower the distributable surplus to policyholders.

A fair amount of time was devoted to discussing dividend limitations and requirements.

The Chinese/Taiwanese delegates indicated that some Taiwanese insurance companies have proposed a new regulation requiring the disclosure of the dividend formula in the life insurance contract. The panel generally disagreed with such a disclosure requirement. In addition, the panel indicated that other nonguaranteed elements should not be subject to much regulation, although some states have restrictions.

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In the United States, there are numerous risk classes for participating products and this refined classification system may lead to additional complications in dividend determination and allocating processes. According to the delegates, standard and nonstandard are the only two risk classes currently available in Taiwanese insurance products. There are no special risk classes based on smoking status.

Risk-Based Capital and GMDB

RBC and GMDBs are two hot regulatory issues in the United States. The panel concentrated on the recent regulatory development of RBC as it relates to the proposed regulation for variable annuities with book guarantees such as GMDB. The primary risk factors for variable products include:

- More complex guaranteed benefits with inadequate risk charges
- Recent adverse experience in the equity market
- Ineffective hedges
- "Dollar-for-dollar" partial withdrawal benefit feature

Cheryl Krueger of CNA described the current insurance regulations of variable annuities. The recent revision of Actuarial Guideline 34 is an example on how insurance companies and insurance regulators worked together to resolve the reserve issue for the "dollar-for-dollar" partial withdrawal benefit feature. Krueger also prepared materials for the delegates to review.

Errol Cramer of Allstate Life discussed the recent development in the variable annuity market. The "dollar-for-dollar" partial withdrawal benefit is no longer offered in new variable annuity products. There are also significant regulatory changes. Under the proposed regulations, reserves and RBC of variable annuities are to be determined using asset adequacy analysis under multiple equity and interest rate scenarios. Reserves are based on the 65 percent conditional tail expectation (CTE) of the accumulated deficiency on a pre-tax basis. RBC, on the other hand, is based on the 90 percent CTE of the accumulated deficiency on an after-tax basis. Companies may incorporate certain hedging assets in setting reserve and RBC levels. Obviously, reserve and RBC levels are good reflections of the underlying risks only if the model offices used for the analysis have reasonably high quality.

Another important consideration for stock companies is the economic surplus because it affects the return on equity. While the perceived margins for reserves and RBC are expected to cover approximately one and two standard deviations of adverse experience, respectively, economic capital may range from three to four standard deviations.

Policy approvals

The Chinese/Taiwanese delegates inquired about the components of actuarial memoranda that were filed with various types of insurance products. The panel described the typical contents of a new product's actuarial memorandum while noting variations among different products. Health products, for example, generally must meet certain required loss ratio standards on an ongoing basis. An actuarial memorandum for a traditional life insurance is relatively simple as the contractual terms are mostly guaranteed except for dividends. UL products, on the other hand, are more complicated as they contain many nonguaranteed elements.

Conclusions

The panel applauded the delegation's initiative in seeking input for effective regulatory apparatus for the growing Taiwanese insurance market. The group appreciated the opportunity to participate in this effort. If the entire day could be summarized into the most important points, the U.S. practitioners hoped the delegation could:

- Promote the actuarial profession as a highly respected and responsible profession in Taiwan
- Set appropriate qualification standards for appointed actuaries addressing regulatory requirements such as actuarial opinion and memorandum
- Become familiar with the senior management of the companies
- Focus on risk management

This task is not easy and the delegates have a stiff challenge ahead. At the end of the two-day visit, all participants were confident that they had assisted the delegation in taking a big step toward designing a sound and viable regulatory system. The panel also felt that the bonds of personal friendship and professional respect that were established have strengthened all. □

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Mexico News for Q2, 2004

Dynamic Solvency Testing Has Arrived in Mexico

by Jose L. Berrios

Circular S-20.12 (Dynamic Solvency Testing) was published in the Diario Official (official publication by the CNSF, the Mexican insurance Commissioner), on May 11, 2004, making its content official regulation. All Mexican Insurance companies must test their current and projected surplus positions in relation to the minimum required capital using a set of scenarios (described below). Note that this regulation applies for both life and non-life operations. For the purpose of this article, the insurance company is referenced as the insurer.

An English summary of this new regulation follows as is described in the May 11, 2004 publication by the CNSF:

I. Definitions
1. Dynamic Solvency Testing—evaluation of the sufficiency of capital with respect to the minimum required capital levels, under a series of scenarios.
2. Financial Condition on a certain date—the ability to meet liabilities and contractual obligations.
3. Financial Position on a certain date—the financial state of the company's assets, liabilities and capital.
4. Scenarios—the consistent set of assumptions that reflect reasonable tendencies of the various variables that effect the insurance operations.

II. Solvency Tests
1. Recent and Actual Financial Information —Insurance companies are required to use at least three years of historical information [for assumption development]. If no history is available, companies are allowed to use market information.
2. Dynamic Solvency Evaluation
   a) Insurer must test the impact of the scenarios in relation to the required minimum capital levels.
   b) The objective of the tests are to identify:
      i. Possible risks that could affect the insurer's financial condition.
      ii. The actions the insurer should take to reduce the probability that these risks materialize, and
      iii. The actions the insurer must take in case the adverse risks materialize.
   c) The objective of solvency evaluation is to identify risks detected by the insurer that could have an impact on financial results and formulate preventive actions accordingly.
3. Satisfactory Financial Condition is achieved, if throughout the projection period:
   a) The insurer is able to meet all its future obligations, under the baseline scenario as well as under the adverse scenarios tested.
   b) The insurer, under the baseline scenario, is able to meet the minimum capital requirement levels.
4. Projection Period – Should start with the most recent financial balance sheet at the start of the evaluation date. The projection period must be sufficiently long to capture all adverse effects and for management to react to these risks. For the life insurance business, the minimum projection period is five years. For the non-life insurance business, the minimum projection period is two years.
5. Scenarios—The insurer should include a baseline scenario, at least three adverse scenarios, an integrated scenario, and the statutory scenarios, the latter are prescribed by the CNSF. Each scenario must take into account:
   a) The policies in force as well as the policies expected to be sold during the projection period [note: later on this document, it calls for filing of expected sales for the next five years, so it is unclear as to how many years of new business should be included],.
   b) Other current or future complemen tary operations that may impact the insurer's minimum capital requirement levels.
6. Baseline Scenario—Is defined as a realistic set of assumptions to be used during the projection period. It should be consistent with the insurer's business plan. If the assumptions are not consistent with those used in the business plan, the actuary must point this out in his/her dynamic solvency report.
7. Adverse Scenarios—Must be feasible and which could have an adverse effect on the insurer's financial condition. The insurer may change the underlying adverse scenarios over time as experience unfolds or requires adjustments accordingly.
   a) The actuary responsible for the solvency testing must select the scenarios. At least three scenarios

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should be defined which incorporate the most significant risks. These scenarios must be described and included in the dynamic solvency report that must be submitted to the insurer's board of directors.

b) For the life insurance business, the adverse scenarios used in the dynamic solvency testing must consider the following risks:
   i. Mortality
   ii. Morbidity
   iii. Interest rates
   iv. Persistency
   v. Asset and liability matching
   vi. Decrease in asset values
   vii. New business
   viii. Acquisition and maintenance expenses
   ix. Reinsurance
   x. Statutory requirements, and
   xi. Other risks [to yet be clarified by the CNSF, but the circular wording seems to imply information that could result in future inflows or outflows].

c) For the non-life insurance business [P&C and health], the adverse scenarios used in the dynamic solvency testing must consider the following risks:
   i. Frequency and severity
   ii. Morbidity
   iii. Rate making
   iv. Reserve deficiencies
   v. Inflation applicable to each line of business
   vi. Interest rates
   vii. Premium volumes
   viii. Acquisition and maintenance expenses
   ix. Reinsurance
   x. Decrease in asset values
   xi. Statutory requirements, and
   xii. Other risks [to yet be clarified by the CNSF, but the circular wording seems to imply information that could result in future inflows or outflows.]

d) To determine if a risk is relevant and feasible, sensitivity tests must be performed for each risk class, analyzing its impact on the sufficiency of capital. The actuary must determine the level of variations of these risks considered in the baseline scenario and those that impact the financial condition. The actuary must judge if the risks are relevant for the projection period.

8. Integrated Scenarios
   a) In some cases the adverse scenarios may be associated with a low probability of occurring [and presumably low impact or severity on the financial condition of the insurer]. In these cases, it is not necessary to construct integrated scenarios that combine two or more adverse scenarios.
   b) In other cases, the probability associated with a scenario may be close to that of the baseline scenario. In these cases, an integrated scenario should be developed that combines the adverse scenarios with the highest probabilities, with an adverse scenario of low probability. The adverse scenario selected that has a low probability should be the one that has the most financial impact for the insurer and that can be combined with the adverse scenario described above.

9. Statutory Scenarios—Are defined as scenarios composed of a combination of assumptions that could impact the financial conditions of an insurance company in the Mexican market. These scenarios will be determined by the Insurance Commissioner's office (CNSF) and will consider the evolution of the insurance industry as well as the economic conditions of the country. These scenarios will be communicated annually in official regulatory releases.

10. Correlation Effects
   a) To ensure the consistency within each scenario previously described above, the actuary must consider the correlation among the selected assumptions. Although the selected assumptions may be appropriate, they may require adjustments due to correlation effects.
   b) The correlation effects should include the effects of statutory requirements [one example would be statutory investment requirements], as well as policyholder behavior, especially if the adverse scenarios are such that the insurer is unable to meet the minimum required capital levels.
   c) The correlation effects should also incorporate the insurer's reaction ability when facing an adverse situation. The reactive actions should include:
      i. The efficiency of the insurer's management information systems
      ii. The disposition the insurer has demonstrated in the past when making difficult decisions under adverse conditions, and
      iii. The external circumstances that are assumed in the scenario.

11. Scope of the Dynamic Solvency Tests and the Appointed Actuary's Report
   a) The actuary's report must include the baseline and adverse scenarios tested

as well as comments related to each identified risk.

b) The report must also contain the statutory scenarios as well as those scenarios where the insurer fails to meet the minimum required capital levels. The report should advise the board that additional capital infusions may be required, should the adverse assumptions materialize [and presumably the ranges of capital infusions required under each failed scenario]. The report should also include alternative ways of reducing the risk such as obtaining more reinsurance coverage or reducing future sales

c) The results for each scenario included in the report should not include the effect of extraordinary actions taken by the insurer or the regulatory authorities.

d) In case of adverse scenarios, the report should indicate the actions required by the insurer to mitigate the risks.

e) The report should include the results for each projection period by scenario. Results are: gains and losses by line of business, the required capital, balance sheet and solvency margin.

f) Extraordinary Test—In case an extraordinary event takes place following the last solvency report and the event is such that it could have a material impact on solvency, then the actuary is compelled to perform an extraordinary test and file a new report. The actuary should not wait until the annual report is due to perform this test.

g) The dynamic solvency testing and report are the responsibility of a licensed actuary and should be carried out according to the following guidelines:

1. The test must be performed annually after closing of the financial statements.
2. The actuary must research and identify the main factors affecting solvency, perform the analysis and file a report.
3. The CEO and actuary must present the actuary's report to the board of directors during the first six months of the following year.
4. If an extraordinary test is performed, the CEO and actuary must also present this report to the board of directors.
5. The actuary's report must include an actuarial opinion with language similar to that of the actuarial opinion in the United States. (not included here, but it is included in the CNSF's circular).
6. The statutory scenarios provided by the commissioner's office will be available 45 days after the year-end closing.
7. The actuary's report containing the results of the statutory scenarios must be submitted to the commissioner's office by July 31 of the following year.
8. The following information must be filed with the commissioner's office by March 31 of each year. Note: The insurer should mark which information is deemed confidential, otherwise it may be deemed as public information:
   1. The anticipated annual premium sales for the next five years by line of busi ness and within each line of business, split by type of insurance coverage for P&C and health, and type of insurance for life (individual, group and collective).
   2. Same as item 1 above, but for retained premiums.
   3. Same as item 1 above, but for acquisition expenses.
   4. Same as item 1 above, but for operating expenses.
   5. Same as item 1 above, but for expected claims ratios.
   6. The anticipated structure of the asset portfolio for the next five years. Transition Rules The insurer must perform its first test using 2004 year-end information. The results and actuary's report must be filed by July 31, 2005. The insurer must submit its first set of information as outlined in item VII above by September 30, 2004.

Author's Note: This new regulation has prompted the formation of a working group by actuaries of several companies. The objective of this group is to evaluate the contents of this regulation for discussion with the CNSF in order to clarify several items that are unclear or are open for interpretation.

For more information, please contact Milliman (Jose Berrios, at (303) 672-9085 or Camilo Salazar at (303) 672-9089). □

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Aquiring a U.S. Operation—A Primer

by Valeri Lopez-Zinzer

When an international parent company purchases its first U.S. operation, the international parent is also likely to be faced with the responsibility for U.S. retirement programs for the first time. The buyer, along with executives of the U.S. operation, also must survive the transition and move into operational efficiency at break-neck speed.

As M&A activity increases worldwide, scenarios such as this are becoming more commonplace, and the special considerations involved are complex. There are five critical stages of M&A activities: due diligence, effecting the transaction, understanding the complex transition issues, designing retirement programs after the sale and management after the sale. The first stage often gets the most press. Due diligence is critical, but a company's first step into the U.S. retirement arena should not be taken without a solid awareness of all the stages.

This article provides non-U.S. corporations with an overview of the issues to consider at each stage when they buy a U.S. operation. Though we focus on qualified pension plans, we also recommend a similar rigorous understanding of issues related to nonqualified pension plans (which often benefit executives) and postretirement medical benefits.

Due Diligence

The objective of due diligence is to identify, quantify and obtain coverage for all risks and liabilities associated with the people aspect of a target company. Beyond these objectives, it's also important to gain a full understanding of the benefits and compensation programs, human resources (HR) structure and culture of the target company.

Appendix A provides a general checklist of materials that an interested buyer should collect to gain a comprehensive understanding of a targeted U.S. company's benefit arrangements. By reviewing these materials, benefits experts can identify and quantify potential pitfalls. These include noncompliance with local standards, hidden subsidies, benefits triggered upon the sale and undocumented promises. An actuarial analysis will alert the buyer to the financial impact of the target's benefits programs. This analysis should precede the negotiating stage and can be crucial in creating the sales agreement.

Due diligence also identifies the actions required for the post-acquisition integration of the target business. If at this point the buyer foresees a low probability of integration, the company could walk away from the transaction.

Effecting the Transaction

Once the buyer thoroughly understands the human capital issues, risks and obligations of the target company and is willing to proceed, the buyer and seller are ready to move into the next stage of the acquisition: the sale.

Advisors representing the seller and purchaser help to shape the sales agreement. An actuary can help ensure that the design, administration and financial aspects of retirement programs are appropriately reflected in the formal sale agreement. Elements of the ideal sale agreement that specifically apply to retirement programs are summarized in Appendix B.

In the United States, an acquisition may involve the transfer of retirement program assets and liabilities, though this does not have to be the case. As with any sales transaction, the seller aims to sell high, while the purchaser aims to buy low. In all cases, the buyer expects that the assets are sufficient to cover the benefit obligations of the transferred participants.

Ideally, the sale agreement will specify the criteria by which assets and liabilities will be measured. Most transactions are based on ERISA §4044, typically referred to as "PBGC Assumptions." This is the standard in the United States set by the Pension Benefit Guaranty Corporation, a government-sponsored insurance company for privately sponsored defined benefit plans. The valuation of assets/liabilities is based on very detailed assumptions that leave little room for interpretation. The liabilities could also be measured using FAS, a measure used for financial statement purposes. There is far less guidance for this liability determination than for an ERISA §4044 determination.

The amount of assets transferred depends on whether the plan is funded on a PBGC basis. If the plan is sufficiently funded, the assets transferred will equal the amount of liability (measured using ERISA §4044 assumptions) associated with the participants being spun off. Otherwise, participants must follow a complex allocation that will parse a transferred participant's total accrued benefit into priority categories. If the assets do not fully fund all priority categories, an allocation is performed to fund as many of the categories as possible. For the buyer, there is a real risk that, after the allocation, the assets calculated for transfer are insufficient to fund the obligation of the transferred participants.

The calculations to determine the amount of transferred assets following a sale are so complex that many calculations are not

Appendix A—Materials to Collect for Due Diligence Stage in the United States

PLAN DOCUMENTATION	
• Retirement plan documents • Summary plan descriptions • Summary of material modifications • IRS determination letter	• Union Arrangements • Undocumented promises • Owner data
DETAILED COMPLIANCE TESTS	
• Nondiscrimination testing results	• Top-heavy testing results
ADMINISTRATIVE REPORTS	
• Financial statements • Actuarial reports • Administrative procedures • Trust statements • Census data	• Employee reports • Employee communication • IRS Form 5500s • PBGC filings
MISCELLANEOUS REPORTS	
• Reportable events • Litigation history • IRS Voluntary Compliance Program filings • IRS, DOL or PBGC audit information	• Funding waiver requests • Service contracts • IRS Form 5330—Return of Excise Taxes Related to Employee Benefit Plans Service Contracts

completed for as long as six months after the closing date. It is typical to adjust the value of the transferred assets from the closing date to a later date. This date would be when the seller's trustee actually transfers the assets to the buyer, to account for the time value of money or monthly benefits paid by the seller until transfer date.

Before, during and after a corporate transaction, the buyer and/or the seller may be subject to reporting requirements to the main governing bodies of U.S. pension plans—the IRS and the PBGC. Also, regulatory bodies impose a number of participant communication requirements, but the buyer may want to supplement these notices with additional communication.

Understanding Complex Transition Issues

The processes of due diligence, effecting the transaction and understanding the transition issues often become one and the same for the purchaser. Transition issues are critically important as the purchaser moves into "after-sale" mode.

One of the challenges for the buyer during the transition is to ensure a full understanding of the processes in the benefits spectrum—from administration and regulation to communication and disclosure. For someone who is well versed in benefits management, this should be a manageable task. However, if the purchase represents the buyer's first foray into U.S. retirement program management, information overload will occur quickly.

The line between fiduciary responsibilities and governance duties can be blurry, especially for a new HR manager. The simplest explanation of the distinction is that fiduciary responsibility is typically defined, managed and regulated under ERISA (the major legislation governing pension plans) and is limited to retirement programs. Governance operates at a much higher corporate level, but may include behavior related to retirement programs. To address any questions that come from the corporate officers, the HR manager must understand the responsibilities at both the fiduciary and the governance levels.

As long as the sponsor satisfies the qualification requirements under ERISA, the sponsor can maintain the pension trust as a tax-exempt fund. These enjoy several tax advantages in the United States, including:

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Appendix B—Critical Retirement Benefit Elements in a Sale Agreement

- Name of each retirement program offered by the seller, including:
  - Qualified pension plan(s)
  - Nonqualified pension plan(s)
  - Postretirement medical plan(s)
  - Postretirement life insurance plan(s)
- Name of each retirement program that the purchaser agrees to sponsor as a condition of the sale transaction (transferred plans)
- Name of each retirement program that the seller agrees to sponsor as a condition of the sale transaction (retired plans)
- Description of which participant's obligations will remain with the seller and which will be transferred to the buyer, divided into the following categories at a minimum:
  - Active participants, including information about whether service after the sale date will be transferred
  - Terminated vested participants
  - Participants in payment
- Stipulations regarding ongoing coverage under the retirement programs transferred to the buyer
- Description of the remediation process in cases of disputes in benefit amounts for benefits earned prior to the closing date
- Basis by which the value of each retirement program to be transferred will be measured with reference to the governing ERISA Code section or Financial Accounting Standard (FAS)
- Basis by which the value mentioned above will be adjusted for the transfer of assets occurring after the effective closing date

- Tax-deductible employer contributions
- Tax-deferred investment earnings
- Tax-deferred benefits

If the purchaser maintained a pension fund before the sale, a review is needed to determine whether a change is needed in the nature of the investments held by the pension fund, its investment policy and/or its asset allocation.

After the Sale—Designing the Buyer's Retirement Programs

If the buyer has the luxury of creating retirement programs that are tailored to the new workforce following the sale, then the next step is to explore the range of options and design the retirement package.

Under less stressful circumstances, this planning can be complicated. Its complexity is heightened when the very corporate team that must define the objectives is overwhelmed by the acquisition details. The senior team members play an absolutely critical role in the design of retirement programs. This is because the design is often shaped by the attitudes toward nonbenefit issues that derive from an understanding of the overall business strategy that led to the acquisition.

After the Sale—Management of the Buyer's Retirement Programs

After the sale, there will be a great deal of focus on financial management, as the plan sponsor will need short- and long-term financial projections to minimize the chance of unpleasant financial surprises. In addition, the myriad administrative, reporting and compliance requirements may seem overwhelming. But, with a solid team of benefits advisors, the plan administrator will become accustomed to the requirements in short order.

Entering the U.S. benefits market as a result of an acquisition is no small task. The buyer must get through five critical stages: due diligence, effecting the transaction, understanding the complex transition issues, designing retirement programs after the sale and management after the sale. Once the parent company has successfully navigated all five stages, it can more quickly focus on implementing the business strategy that brought it to the negotiating table. □

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SOA International Experience Survey—
Embedded Value Financial Assumptions

by William Horbatt, Dominique Lebel, and Ronora Stryker

The Society of Actuaries began its International Experience Survey (IES) in 2003 and presented a pilot study of mortality and persistency experience in three developing markets at the SOA 2003 Annual Meeting in Orlando. The IES was expanded to include a survey of financial assumptions contained in 2003 embedded value reports, the results of which are presented in this article.

The purpose of this survey is to provide international actuaries with benchmark assumption data. Since many companies make this information publicly available, no formal data request was issued. Instead, the survey was based on reports published on the Internet by eighteen companies centered in Australia, Canada and Europe that are active internationally.

Each financial assumption presented in this article is the average value of all companies reporting the assumption in their 2003 embedded value report. If no companies reported a specific assumption in a given country, then that assumption is labeled "NA," signifying that data is not available. Some companies vary assumptions by calendar year, while other companies use a single assumption; in the former case, the study was compiled based upon ultimate data.

Suggestions about additional sources of information and additional companies publishing embedded values are welcome.

Financial Assumptions from Survey

Financial assumptions presented in this article include:

(1) Discount rate—the rate used to calculate the present value of future distributable earnings
(2) Equity return—the total return on common stock investments
(3) Property return—the total return on investments in real estate
(4) Fixed return—the ultimate yield on a corporate bond portfolio held by an insurance company
(5) Government return—typically the yield on a 10-year bond offered by the local government
(6) Inflation—used to increase future expenses and, possibly, revalue policy terms.
(7) Tax rates—income tax rates by jurisdiction

COMPANIES INCLUDED IN SURVEY

Aegon	Allianz
AMP	Aviva
AXA	Fortis
Generali	Hannover Re
ING	Legal & General
ManuLife	Munich Re
Old Mutual	Prudential (UK)
Skandia	Sun Life
Swiss Life	Swiss Re

When reading Table 1, several thoughts should be kept in mind:

- Although practices vary, the discount rate is frequently set based on the Capital Asset Pricing Model (CAPM) methodology; in this case, many companies assume that their insurance company's volatility matches the market (i.e. Beta is equal to one), which results in a discount rate that is equal to the risk-free rate plus an average equity risk premium. Companies may also vary discount rates by product line to reflect the higher Beta associated with riskier business.
- Equity and property returns normally include both cash income (that is, stockholder dividends and rental payments) and asset value appreciation (or depreciation), and these yields may be reported net of investment expenses. Alternatively, equity returns may represent the fund appreciation prior to any fees or charges made against the fund. In all cases, equity and

LIMITATIONS

Readers should use judgement when interpreting the results of the survey and note that:

- When comparing one assumption to another, the reader should note that different companies might be contributing data to different assumptions, so that differences between variables may reflect differences between companies, rather than differences between the assumptions.
- Some cells include data from many companies, while others include data from as few as one company.

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COUNTRIES WITH NUMBER OF CONTRIBUTING COMPANIES

Argentina (1)	Australia (4)
Austria (3)	Belgium (6)
Bulgaria (1)	Canada (5)
Czech Republic (1)	Chile (1)
China (1)	France (8)
Germany (7)	Greece (1)
Hong Kong (3)	Hungary (2)
India (1)	Ireland (3)
Italy (6)	Japan (3)
Luxembourg (4)	Malaysia (1)
Mexico (1)	Netherlands (7)
New Zealand (1)	Poland (2)
Portugal (2)	Romania (1)
Slovakia (1)	South Africa (2)
South Korea (2)	Spain (6)
Sweden (3)	Switzerland (2)
Taiwan (2)	Thailand (1)
UK (10)	US (10)

property returns will be influenced by company investment strategy.

- Fixed returns reflect the investments in an insurer's bond portfolio. Amortized book yields are typically used in countries where book profits are based on amortized book value, while current market redemption yields are used when profits are calculated using market values. Companies generally do not disclose whether the fixed- income returns are net of defaults or investment expenses.
- The inflation assumption may differ from general inflation (for example, the increase in a consumer price index).
- Tax rates are dependent upon individual company circumstances (for example, the existence of tax loss carry forwards) and thus these rates cannot necessarily be applied to other companies.

Finally, it needs to be noted that some companies use identical assumptions for multiple countries (on the basis that this results in immaterial differences), and this practice would tend to dampen differences between countries.

Several observations can be made concerning Table 1:

- The discount rate varies within a narrow band in economically developed markets like the United States and Western Europe. The highest discount rates are found in emerging (or unstable) markets in South Africa, Latin America, India and parts of Central Europe.
- Companies may base their discount rate assumption on their equity return assumption (or vice versa) and this may be evident when comparing discount rates and equity returns in Table 1. In Western Europe and North America, where the survey has the greatest amount of data, the discount rate is slightly higher than the assumed equity return.
- The practice of investing general account assets in property markets is more common outside of the United States and Canada where there may be little or no legal restrictions on investment classes. This is particularly true in Europe, and South Africa, Australia and New Zealand.
- Equity and property returns generally exceed the fixed-income returns, as would be expected. An interesting observation is that property returns sometimes exceed equity returns in the southern hemisphere, while the equity returns exceed property returns in Europe.
- Fixed returns reflect the distribution of fixed-income securities in an insurer's portfolio and will tend toward the government return rate as the proportion of securities invested in government bond increases. Countries with a higher proportion of government bonds will have fixed returns closer to the government returns.
- Government bond returns vary slightly within the European Currency Union (euro zone), possibly indicating that investors see residual country risk even after the adoption of the currency union.

Investment Premiums and Other Marginal Relationships

Investment premiums are the additional yield an investor is expected to receive by purchasing an asset other than a government bond.

- Equity Premium—the excess yield from investing in common stock over the return on government bonds
- Property Premium—the excess yield from investing in real estate over the return on government bonds
- Credit Spread—the excess yield from investing in both corporate and government bonds over the return on government bonds

In addition, the following two marginal relationships may be of interest:

- Risk premium—the excess of the embedded value discount rate over the return on government bonds

TABLE 1—AVERAGE 2003 FINANCIAL ASSUMPTIONS							
	DISCOUNT RATE	EQUITY RETURN	PROPERTY RETURN	FIXED RETURN	GOVERNMENT RETURN	INFLATION	TAX RATES
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
COUNTRY							
AFRICA							
SOUTH AFRICA	12.7%	11.4%	12.0%	9.4%	9.1%	6.4%	37.8%
AMERICA-LATIN							
ARGENTINA	16.5%	NA	NA	NA	8.7%	7.0%	NA
CHILE	12.6%	NA	NA	NA	8.5%	3.0%	NA
MEXICO	13.1%	NA	NA	NA	8.6%	4.0%	NA
AMERICA-NORTH							
US	7.8%	8.2%	NA	5.7%	4.5%	2.3%	32.8%
CANADA	8.4%	8.3%	NA	6.2%	5.0%	2.0%	32.8%
ASIA							
AUSTRALIA8	9.0%	8.9%	7.7%	6.2%	5.6%	2.4%	NA
CHINA	8.6%	12.0%	NA	NA	4.5%	2.5%	NA
HONG KONG	8.9%	9.9%	NA	NA	5.0%	1.3%	NA
INDIA	13.1%	NA	NA	NA	7.0%	4.5%	NA
JAPAN	5.7%	6.8%	NA	NA	2.0%	NA	36.0%
MALAYSIA	10.6%	9.0%	NA	NA	6.5%	3.0%	NA
NEW ZEALAND	NA	6.3%	8.0%	6.5%	6.0%	2.5%	NA
SOUTH KOREA	9.7%	9.0%	NA	NA	5.8%	3.0%	NA
TAIWAN	8.1%	8.0%	NA	4.4%	4.3%	1.8%	NA
THAILAND	10.6%	NA	NA	NA	5.5%	NA	NA
EUROPE-CENTRAL							
BULGARIA	11.1%	NA	NA	NA	5.7%	3.1%	NA
CZECH REPUBLIC	7.9%	NA	NA	NA	4.8%	3.0%	NA
HUNGARY	8.7%	9.0%	9.0%	6.6%	5.6%	3.4%	NA
GREECE	7.6%	NA	NA	NA	4.5%	2.3%	NA
POLAND	10.9%	6.5%	NA	NA	5.6%	3.5%	19.0%
ROMANIA	12.8%	6.5%	NA	NA	7.0%	4.9%	NA
SLOVAKIA	8.2%	NA	NA	NA	5.1%	3.7%	NA
EUROPE-WESTERN							
AUSTRIA	7.5%	7.1%	NA	4.5%	4.3%	1.9%	33.0%
BELGIUM	7.5%	7.1%	5.8%	4.8%	4.3%	1.9%	NA
FRANCE	7.7%	7.0%	5.5%	4.7%	4.3%	2.2%	34.5%
GERMANY	7.5%	7.2%	5.1%	4.7%	4.3%	1.8%	39.9%
IRELAND	8.0%	7.3%	6.0%	4.5%	4.4%	4.0%	38.3%
ITALY	7.6%	7.5%	5.9%	4.5%	4.4%	2.7%	35.9%
LUXEMBOURG	7.7%	7.0%	5.1%	4.8%	4.2%	1.6%	NA
NETHERLANDS	7.6%	7.3%	5.9%	4.9%	4.3%	2.1%	25.0%
PORTUGAL	7.6%	7.0%	NA	4.5%	4.3%	NA	NA
SPAIN	7.6%	7.4%	6.3%	4.7%	4.4%	2.2%	35.0%
SWEDEN	7.5%	7.1%	NA	4.5%	4.5%	3.1%	NA
SWITZERLAND	7.3%	6.0%	4.5%	4.2%	3.5%	NA	NA
UK	7.7%	7.2%	7.0%	5.4%	4.7%	3.1%	30.0%
EUROPE-EASTERN/ASIA-NORTHERN							
RUSSIA	NA	NA	NA	NA	8.5%	NA	NA

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TABLE 2—INVESTMENT PREMIUMS AND OTHER MARGINAL RELATIONSHIPS					
	RISK PREMIUM	EQUITY PREMIUM	PROPERTY PREMIUM	CREDIT SPREAD	REAL RETURN
	(8)=(1)-(5)	(9)=(2)-(5)	(10)=(3)-(5)	(11)=(4)-(5)	(12)=(5)-(6)
COUNTRY					
AFRICA					
SOUTH AFRICA	3.6%	2.3%	2.9%	0.3%	2.7%
AMERICA-LATIN					
ARGENTINA	7.8%	NA	NA	NA	1.7%
CHILE	4.1%	NA	NA	NA	5.5%
MEXICO	4.5%	NA	NA	NA	4.6%
AMERICA-NORTH					
US	3.3%	3.6%	NA	1.2%	2.3%
CANADA	3.3%	3.2%	NA	1.2%	3.0%
ASIA					
AUSTRALIA	3.4%	3.3%	2.1%	0.6%	3.3%
CHINA	4.1%	7.5%	NA	NA	2.0%
HONG KONG	3.9%	4.9%	NA	NA	3.8%
INDIA	6.1%	NA	NA	NA	2.5%
JAPAN	3.7%	4.7%	NA	NA	NA
MALAYSIA	4.1%	2.5%	NA	NA	3.5%
NEW ZEALAND		0.3%	2.0%	0.5%	3.5%
SOUTH KOREA	3.9%	3.3%	NA	NA	2.8%
TAIWAN	3.8%	3.8%	NA	0.1%	2.5%
THAILAND	5.1%	NA	NA	NA	NA
EUROPE-CENTRAL					
BULGARIA	5.4%	NA	NA	NA	2.6%
CZECH REPUBLIC	3.1%	NA	NA	NA	1.8%
HUNGARY	3.1%	3.4%	3.4%	1.0%	2.2%
GREECE	3.1%	NA	NA	NA	2.2%
POLAND	5.3%	0.9%	NA	NA	2.1%
ROMANIA	5.8%	-0.5%	NA	NA	2.1%
SLOVAKIA	3.1%	NA	NA	NA	1.4%
EUROPE-WESTERN					
AUSTRIA	3.1%	2.7%	NA	0.2%	2.4%
BELGIUM	3.1%	2.8%	1.4%	0.5%	2.5%
FRANCE	3.3%	2.7%	1.1%	0.3%	2.2%
GERMANY	3.2%	2.9%	0.8%	0.4%	2.5%
IRELAND	3.6%	2.9%	1.6%	0.1%	0.4%
ITALY	3.2%	3.1%	1.5%	0.1%	1.7%
LUXEMBOURG	3.4%	2.8%	0.9%	0.6%	2.6%
NETHERLANDS	3.3%	2.9%	1.6%	0.5%	2.2%
PORTUGAL	3.3%	2.7%	NA	0.2%	NA
SPAIN	3.2%	3.0%	1.9%	0.3%	2.2%
SWEDEN	3.1%	2.7%	NA	0.0%	1.4%
SWITZERLAND	3.7%	2.5%	1.0%	0.6%	NA
UK	2.9%	2.5%	2.3%	0.7%	1.6%

- Real return—the excess of the government return over inflation

Table 2 presents the marginal relationships derived from Table 1. The column numbering continues the numbering in the prior table.

A few observations can be made concerning Table 2:

- Risk premiums range from 2.9 percent in the United Kingdom to 7.8 percent in Argentina with most developed country risk premiums in the 3-3.5 percent range. Argentina appears to be an example of where companies increase risk premiums to reflect foreign exchange and political risk.
- Equity premiums have greater variance than risk premiums, ranging from –0.5 percent in Romania to 7.5 percent in China, which represents a spread of 8 percent versus 4.9 percent for risk premiums.
- Property premiums are generally less than equity premiums, but are greater than credit spreads.
- Credit spreads reflect the proportion of government bonds included in the fixed-income portfolio. For example, U.S. investments are predominantly corporate bonds and asset-backed securities yielding a 120 basis point (bp) credit spread, while European investments have historically been heavily weighted towards government bonds, which results in a credit spread approximately equal to 50 bp.
- Real returns over inflation on "risk free" government bonds are generally in the 2-3 percent range with significantly higher returns in Chile, Mexico and, to a lesser extent, several Asian or Oceanic countries.

Please note that the data is relatively sparse outside the more developed countries in Europe and North America, so the observations and conclusions may change when additional data becomes available.

Summary

The International Experience Study Working Group (IESWG) has published this survey to enhance the knowledge of actuaries about current international market conditions and practices. Practice continues to evolve and we wish to encourage an open discussion on appropriate methodologies and further disclosure of both assumptions and the thoughts behind their formulation.

The IESWG intends to update this survey annually. We invite additional companies to provide data, on a confidential basis, to be included in this and future surveys. Please contact Ronora Stryker (rstryker@soa.org) or Jack Luff (jluff@soa.org) at the Society of Actuaries for further information. □

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Meet the New Kids

The Younger Actuaries Section got the nod of approval at the June 2004 Board of Governors meeting. The new section was created out of the need to establish a stronger link to recently qualified and future actuaries. Led primarily by younger actuaries, the section will work to advance the actuarial profession by addressing the needs of actuaries who are in the earlier part of their careers. Among other activities, the section will serve as a venue for the identification and development of future SOA leaders, will educate its members about and give them a voice in SOA activities, increase the sense of belonging to the profession, and will develop various programs targeted at professional advancement of younger actuaries. There is no age or credential requirement to join the section. Senior members are encouraged to join to stay in touch with the ideas and needs of the next generation of actuaries and to serve as mentors to the younger actuaries. Candidates and those early in their career are encouraged to join to link to the profession and benefit from section programs and activities that will further their professional and personal development. In order to ratify the section, 200 SOA members must sign up. Please support this cause, sign up today at *www.soa.org/ccm/cms-service/stream/asset/?asset_id=5179052&g11n.*

For more information, please contact Valentina Isakina, SOA Finance Practice Area Actuary at (847) 706-3584 or *visakina @soa.org*. □

Opportunities and Challenges in the Korean Insurance Market

by Chi Hong An, ASA

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Korea's financial crisis in the late 1990s caused a dramatic shift of wealth from low to high-income earners: the rich got richer and the poor got poorer. These days, young professionals in the wealth-accumulation group are looking for enhanced financial services, and the high- net-worth group that has capitalized greatly on the rebound of the capital and real estate markets is looking for a better way to secure their wealth. People have learned about financial risk the hard way, consequently, protecting their wealth in this volatile market is their major concern.

Due to the greater demand for financial services to focus on wealth accumulation and management, service providers are introducing more innovative and sophisticated services, such as private banking and financial planning tailor-made for specific clients.

Meanwhile, globalization, financial holding-companies, a low-interest-rate environment, and changes in the regulatory environment pose both challenges and opportunities for the Korean economy. While these challenges will in some ways strengthen the fundamentals of the financial market, they will also threaten some companies that are incapable of coping with such forces.

TABLE 1—MAJOR CHALLENGES FOR THE KOREAN FINANCIAL MARKET

- Globalization
- Financial holding companies
- Low-interest-rate environment
- Changes in the regulatory environment

Reforming the Market

About one-third of Korean domestic life insurers declared bankruptcy due to the financial crisis in 1997. While some were successfully merged into or acquired by other insurers, some were eventually merged into a life insurer under the custody of the government. Any joint venture partnerships between failed local companies and foreign insurers were dissolved. They are now under a single ownership or management.

Since the market reshuffle, insurance companies are now classified into three groups: the Big Three, domestic and foreign insurers. Samsung, Kyobo and Korea Life are grouped into the "Big Three." The remaining life insurers under local ownership are grouped as "domestic," while those under foreign ownership are grouped as "foreign." There are no longer any companies in a joint-venture partnership.

As summarized in Table 2, there are currently 23 life insurance companies in Korea. It is worth noticing the strengthened position of the foreign insurers in the market. They will play an important role in future market development, becoming market makers rather than market followers, by introducing advanced and innovative products to the market.

Merger and Acquisition (M&A) Market Prospects

Many of the domestic life insurers are affiliates of group companies; and, while profitability is one of the owners' main interests, it is in fact more important for them to have management control over the insurance companies. Historically, conglomerates established their insurance arms to have easy access to low-cost capital.

TABLE 2—MARKET STATISTICS AS OF 30 SEPTEMBER 2003

	NO. OF COMPANIES	NEW BUSINESS (FA)	TOTAL ASSETS	SURPLUS
BIG THREE	3	79,038	128,396	3
DOMESTIC	10	30,077	18,948	10
FOREIGN	10	29,791	13,483	10
TOTAL	23	138,905	160,827	23

The largest M&A deal in the history of the Korean insurance industry was completed at the end of 2002, when the Hanwha consortium acquired Korea Life. The participating partners in the consortium were the Hanwha group from Korea, Orix from Japan and Macquarie from Australia. It took a long sales process to complete this acquisition.

Daishin Life, which was involved in the public sales process for about two years, was recently acquired by Green Cross, a leading pharmaceutical company in the local market. Hanil Life was reported to be acquired by Kookmin Bank, the largest bank in Korea, for use as their bancassurance business arm.

Financial institutions from other industries are now preparing to provide comprehensive financial services to their customers through bancassurance and wealth management. Domestic insurers are expected to have fewer opportunities in the bancassurance market, as they have less to offer than the Big Three and foreign insurers. One feasible solution for domestic insurers to serve this market would be to merge with other insurers to strengthen their business operations and to improve productivity. Another solution would be to invite foreign capital to strengthen their financial position, but the issue of management control will be a difficult issue.

Table 3 summarizes recent M&A activity in the Korean life insurance market. In addition, both Samsung and Kyobo are in preparation for possible IPOs, but there are some outstanding issues that need to be resolved.

TABLE 3—RECENT M&A ACTIVITIES IN THE MARKET

Korea Life	Acquired by Hanwha consortium
Daishin	Acquired by Green Cross
Hanil	Announced to be acquired by Kookmin Bank
PCA	Prudential UK acquired Youngpoong

Regulatory Issues

Insurance Business Law (IBL)

The IBL was revised in May 2003. One change will allow life insurers to sell insurance in a third area products, such as personal accident, disease and long-term care products, such as indemnity-type insurance. This will enable them to compete with property and casualty (P&C) insurers under the same regulatory conditions. In return, P&C insurers would be allowed to sell their long-term products with an unrestricted insurance period. (Currently, these products are restricted to an insurance period of less than 15 years and coverage up to age 80.) The changes will be effective as of August 2005.

Financial Reinsurance

In 2002, when coinsurance was allowed, financial reinsurance became the immediate solution for financially constrained companies to meet the solvency margin requirement; but, reinsurers have been hesitant to deal with financially insolvent companies. Financial reinsurance may be costly, but it can be utilized in various areas, such as new business growth constraint, asset-liability management and other areas.

Corporate Pension

Last year, the government announced that it would introduce corporate pensions into the market, which would operate concurrently with the existing retirement plan. Employees would be given the option of converting their current defined benefit retirement plan to the corporate pension scheme. Once converted, however, employees would not be able to revert back to their previous plan. The greatest criticism by employees of the current retirement system is its lack of portability between employers. Under the current plan, employees can make partial withdrawals from their plans on an annual basis, and they are required to withdraw the total amount when they resign.

The corporate pension plan under consideration would be similar to the company sponsored 401(k) plan offered in the United States. The current retirement plan could easily be converted to this type of plan, which would be easier to administer, from an employer's perspective. It is also portable from one employer to another.

Managed Care

Together with existing employer-provided benefits, a managed care system, which will supplement the state health system, is expected to be introduced in 2005. The state system is currently the only insurance scheme covering medical expenses. Considering the substantial rise in insurance costs over the last few years, and the fact that a further cost increase would be quite burdensome to consumers, the introduction of an efficient health insurance system is inevitable.

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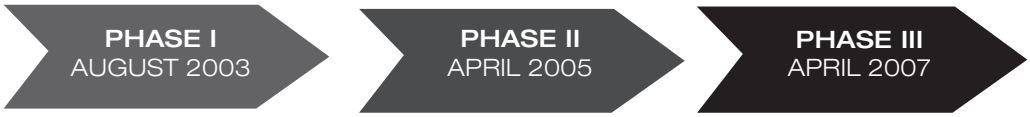
FIGURE 1—EXPANSION OF PERMITTED PRODUCTS



Bancassurance

Considering its strong potential to reform the life insurance industry, bancassurance is currently the most carefully scrutinized activity in the financial industry.

Regulators will introduce bancassurance in three phases. Phase 1 was implemented in August 2003, Phase 2 will begin in April 2005 and Phase 3 is scheduled to begin by April 2007 (see Figure 1). The core issues for bancassurance are its form, product development, and sales processes and approaches. While each of these areas will initially have some restrictions, they will likely be reduced, as the process advances through the phases.

Banks (retail and industrial), mutual savings banks, and securities firms will be allowed to sell insurance-type products through bancassurance. Customer protection is another issue at the top of the regulator's agenda in the implementation process.

Bancassurance Phase-In

In Phase 1, large financial institutions with assets over two trillion won are required to form business alliances with at least three insurance companies, each of which is restricted to having no more than 50 percent of the business sold by their banking partner. In addition, a cross-partnership between a bank with its own insurance arm and the insurance subsidiary of another bank is not permitted, in order to prevent the business from transferring between the two groups.

Development of Bancassurance Products

As illustrated in Table 4, in the first phase, it is likely that credit life and savings-type insurance policies will be allowed to be sold through banks. In the later phases, protection-type insurance policies, including whole life and term life policies, will be allowed.

Sales Processes and Approaches

A branch-based approach to customer service is permitted, and limited use of the non-branch-based approach is also permitted. Use of call centers and outbound marketing is not allowed. Direct mailing and Web site marketing are already being used by banks, therefore, it would be unjustifiable to prohibit the current practice for the introduction of more defined approaches.

This approach was originally intended to give small to medium-sized insurers every opportunity to develop business alliances with banking partners.

However, the banking partners' predominant role and the significant initial investment required by the insurers have restricted those companies hoping to capitalize on the opportunity.

Market Trends

Most Korean life insurers have shifted their leading life products from savings type to protection-type products, as demonstrated in Table 5.

TABLE 4—EXPANSION OF PERMITTED PRODUCTS

PHASE 1	
Life	Individual Savings Insurance and Credit Insurance
P&C	Household Fire and Long-Term Savings Insurance
PHASE 2	
Life	Individual Protection Insurance
P&C	Motor (Personal Use) and Long-Term Protection Insurance
PHASE 3	
Life	Group Insurance
P&C	Motor (Business Use) and Commercial Line Insurance

TABLE 5—BUSINESS VOLUME BY PRODUCT TYPE

	FACE AMOUNT				PREMIUM INCOME	
	New Business		Existing Business		New Business	
Fiscal Year	Savings	Protection	Savings	Protection	Savings	Protection
1999	30%	70%	35%	65%	73%	27%
2000	34%	66%	32%	68%	29%	71%
2001	14%	86%	25%	75%	55%	45%
2002	15%	85%	22%	78%	49%	51%
2003 (SQ)	12%	88%	20%	80%	46%	54%

TABLE 6—BUSINESS VOLUME BY TYPE OF BUSINESS

	FACE AMOUNT				PREMIUM INCOME			
	New Business		Existing Business		New Business		Exisiting Business	
Fiscal Year	Individual	Group	Individual	Group	Individual	Group	Individual	Group
1999	88%	12%	91%	95%	70%	30%	82%	18%
2000	93%	7%	94%	6%	82%	18%	90%	10%
2001	95%	5%	95%	5%	84%	16%	96%	4%
2002	95%	5%	96%	5%	94%	6%	96%	4%
2003 (SQ)	95%	5%	96%	4%	96%	4%	96%	4%

Among the protection-type products, a significant increase in sales is due to whole life policies. The proven success of whole life policies sold by foreign insurers has motivated domestic insurers to sell the policies through their female tied-agency forces and newly established professional sales forces. Some companies market their products through independent agency forces.

Introduction of the corporate pension and employee benefits, such as cafeteria plans, would signify growth in the group insurance market. The size of group insurance is negligible when compared with individual insurance. The statistics shown in Table 6 indicate that the market has significantly downsized over the last few years.

Also, cafeteria plans can be expected to capture a small market share in the early stage of the plan introduction. For cafeteria plans to grow substantially, it will be necessary to include medical expense coverage in the plan.

Market Share

Table 7 illustrates the trend in market share development. The major change seen here is the shift of the market share from domestic and Big Three insurers to foreign insurers. If the market share of Allianz, which represents about 4 percent of the total market, is excluded from the foreign insurers, as Allianz represents an ownership transfer to foreign from a former domestic insurer, the market share advancement of foreign insurers is even more remarkable.

The success of foreign insurers can be explained by the fact that they have targeted high-net-worth and affluent markets with a simple whole life product through a professional sales force. As the high-net-worth market becomes saturated, they will expand their target market to the upper-middle-class market and will also strive for territorial expansion. Some foreign insurers have also deployed aggressive business expansion strategies through alternative distribution channels. With a better reputation and better brand recognition supporting their aggressive business expansion, these foreign insurers will be equally competitive with the Big Three in new and underserved markets.

Although small changes are observed in Table 7 for the Big Three insurers, those companies have gone through total restructuring, including a significant downsizing in their female sales forces and the establishment of professional sales forces. Although the restructuring had a negative effect on business growth, their profitability improved greatly.

New Business

Similar to the trend observed in premium income, new business for the Big Three and domestic insurers has decreased over the

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TABLE 7—BUSINESS VOLUME BY PRODUCT TYPE

	Big Three		Domestic		Foreign		Total	
Fiscal Year	Premium	M/S	Premium	M/S	Premium	M/S	Premium	M/S
1999	32,249	77%	7,307	18%	2,139	5%	41,695	100%
2000	37,784	81%	5,987	13%	2,900	6%	46,671	100%
2001	32,202	77%	5,638	14%	3,744	9%	41,584	100%
2002	33,061	75%	5,974	14%	5,056	12%	44,091	100%
2003 (SQ)	15,647	72%	3,127	14%	2,943	14%	21,718	100%

Unit: billions of won

TABLE 8—MARKET SHARE BY NEW BUSINESS PREMIUM*

	Big Three		Domestic		Foreign		Total	
Fiscal Year	Premium	M/S	Premium	M/S	Premium	M/S	Premium	M/S
1999	15,770	75%	4,214	20%	1,044	5%	21,028	100%
2000	20,828	82%	3,041	12%	1,544	6%	25,413	100%
2001	12,549	75%	2,237	13%	1,925	12%	16,711	100%
2002	10,093	70%	2,035	14%	2,324	16%	14,452	100%
2003 (SQ)	4,014	63%	1,154	18%	1,206	19%	6,374	100%

Unit: billions of won **The new business premium includes single payment policies.*

years, while an opposite trend is observed for foreign insurers. In fact, foreign insurers overtook domestic insurers in new business by the end of 2002 (See Table 8).

Two companies worth observing are ING and AIG Life. Between fiscal years 1999 and 2002, ING's total premium has grown almost sevenfold to 779 billion won. It is now Korea's fifth largest insurer by new business premium and, by taking business growth into account, it is also the fifth largest insurer by total premium. ING's good product mix is considered to be one of its success factors.

Like ING, AIG Life has experienced a 10-fold growth in its total premium with 288 billion won. AIG Life was able to achieve this growth in such a short timeframe due to its multi-channel strategy. It may now have the most diversified channels in the Korean insurance market.

Profitability

As seen in Table 9, which summarizes the reported profit of the industry, business results are improving at a remarkable rate. Almost all companies experienced improved profitability, and many made positive profits in FY2001 and FY2002. Two main reasons for the positive profits in FY2001 and FY2002 are the partial recovery of the financial losses due to the economic crisis in 1997 and the contribution by sales of the whole life policies. Under the current reserving method, huge profits are expected in the first two years, typically followed by five years of losses from the sales of whole life policies.

Lapse/Surrender

The market is experiencing a significant improvement in lapse and surrender rates. Two main reasons for the improvement are effective sales management and sales of whole life policies. Many companies have strengthened their sales monitoring system by introducing programs for the branch or sales managers that provide an incentive for improved policy persistency and a penalty for low policy persistency.

At the same time, greater effort is being given to training sales agents to identify potential customers and to serve customers effectively. While the persistency of policies sold by traditional female agents has improved significantly, policies sold by professional agents generally have better persistency.

Alternative Distribution Channels (Including Bancassurance, Direct Marketing and Telemarketing)

While the tied agency system, from female agents to professional sales force, is well established in the market, insurance companies have made a limited commitment to developing alternative distribution channels.

TABLE 9—REPORTED PROFIT OF THE LIFE INSURANCE INDUSTRY

Fiscal Year	Big Three	Domestic	Foreign	Total
1999	-645	-348	12	-981
2000	-306	-239	-64	-609
2001	1,628	75	20	1,723
2002	2,303	247	277	2,827
2003 (SQ)	1,422	182	203	1,807

Unit: billions of won

Currently, available distribution channels and channels in development are listed in Table 10, along with the leading companies in each channel.

According to market observation, only a few companies are actively developing new channels. Most small to medium-sized domestic companies are currently focusing instead on developing professional sales forces. Alternative distribution channels would most effectively be used for simple protection-type products.

TABLE 10—LEADING LIFE INSURERS IN EACH ALTERNATIVE DISTRIBUTION CHANNEL

Distribution Channel	Leading Companies
Independent brokerage	Kyobo, PCA
Independent financial adviser	Samsung
Direct marketing (DM)	AIG
Telemarketing (TM)	LINA, AIG, Shinhan, MetLife, PCA
Cyber marketing (CM)	All companies lead generation
Worksite/affinity marketing	Samsung, Kyobo
Bancassurance	AIG, ING, Tongyang, Shinhan, Kyobo, Samsung, PCA

Product Development

In April 2000, assumed interest rates in pricing were liberalized. The regulator, the Financial Supervisory Service (FSS) prescribed an interest rate ceiling for the calculation of policy reserves, to prevent inappropriate assumptions. The ceiling was set at 6.5 percent for participating products and 7.5 percent for non-participating products. Those rates were reduced to 5.5 percent and 6.5 percent, respectively, in 2001, and further reduced to 4.5 percent and 5.0 percent, respectively, in 2002.

In early 2002, FSS announced that companies would be given product protection rights similar to copyrights for six months on newly introduced products, if they were considered innovative. Samsung, Kyobo and several others obtained six month/three month protection rights for the development of new products.

Two major revisions on pricing assumptions were announced recently by the regulator, which effectively undermined the profitability in mortality and expenses. As of December 2002, the pricing assumption and reserve calculation uses the fourth EMT (Experience Mortality Tables). The new mortality tables are lowered by about 30 percent on average from the previous tables. This applies only to new business.

The prescribed acquisition expense loading for calculation of the minimum nonforfeiture value was also lowered. Consequently, domestic insurers—most of

TABLE 11—PRODUCT DEVELOPMENT

Line of Business	Product	Year of Launch
Individual Business	Preferred life	2000
	Variable life	2001
	Variable annuity	2002
	Accelerating critical illness	2002-2004
	Variable universal life	2003
	Long-term care	2003-2004
	Credit life	2004-2005
	Individual health policies	2005
	Corporate pension	Under discussion
	Group health policies	Under discussion

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TABLE 12—KOREAN INTEREST RATES

Rate	31 Mar. 03	31 Dec. 02	31 Dec. 01	31 Dec. 00	31 Dec. 99
3 Month CD	4.70%	4.90%	4.86%	6.87%	7.3%
1 Year Treasury	4.60%	4.98%	5.34%	6.69%	N/A
3 Year Treasury	4.62%	5.11%	5.91%	6.70%	9.03%
5 Year Treasury	4.77%	5.34%	6.73%	6.91%	10.05%
10 Year Treasury	5.04%	5.63%	7.02%	7.21%	N/A
3 Year Corporate Bond (AA-)	5.38%	5.68%	7.04%	8.13%	N/A

whom have enjoyed relatively large profits on the expense loading—face a significant reduction in profits. Foreign insurers, most of whom generally use up the available expense loading, may need to reduce their sales commission level to prevent negative profit on the expense loading.

A few companies have introduced variable products to reduce their investment risk. Since the financial market is bearish at the moment, those products are not so popular. Variable life and variable annuities need a guaranteed minimum death benefit (GMDB) and a guaranteed minimum maturity benefit (GMMB) to get the regulator's approval in the market.

Table 11 on the previous page contains a list of the new products recently introduced or in development.

Improved policy persistency, together with the introduction of whole life policies, has substantially increased the duration of the liabilities. Product development must consider the duration of the liabilities, since availability of assets for duration management is limited in the current financial market.

Asset-Liability Management

Lower interest rates, brought on by the economic crisis, have depressed the prof-

APPENDIX 1—SUMMARY OF LIFE INSURANCE COMPANIES IN KOREA

	FY1999			FY2002			FY2003 (2Q)		
Company	NB (FA)	Assets	GP	NB (FA)	Assets	GP	NB (FA)	Assets	GP
Samsung	78,078	46,598	15,063	85,468	67,602	17,098	39,384	71,698	7,900
Korea Life	48,582	18,149	8,118	73,876	27,870	8,833	5,983	29,366	4,224
Kyobo	66,772	23,572	9,068	54,663	26,156	7,131	24,090	27,332	3,523
Hungkuk	8,329	3,544	1,378	7,859	3,370	1,096	4,037	3,820	541
Tongyang	6,240	2,525	1,234	13,248	3,408	1,149	7,201	3,626	654
SL	7,455	2,872	1,252	9,584	3,334	1,197	4,714	3,559	596
Kumho	5,512	2,477	1,172	5,396	2,764	827	3,046	2,913	409
Shihan	7,857	1,881	722	7,729	2,273	885	6,878	2,559	544
Green Cross	2,509	1,511	797	1,695	868	325	564	1,045	78
Dongbu	1,818	601	272	2,298	685	229	1,994	745	127
Lucky	1,451	903	254	3,591	478	197	1,521	492	100
Hanil	946	355	225	304	90	33	2	87	12\1,08
Allianz	13,226	3,983	1,495	14,310	6,160	2,233	6,647	6,524	3
ING	3,082	258	163	10,805	2,068	1,106	6,298	2,656	726
MetLife	1,949	569	220	7,568	1,299	444	3,401	1,478	264
Prudential	4,398	203	141	8,178	1,252	593	3.973	1,509	344
AIG Life	1,065	48	28	11,067	513	406	6,007	760	347
LINA	917	84	45	2,753	239	194	1,217	270	111
PCA	100	81	22	705	109	27	932	145	30
France	200	44	14	—	—	—	—	—	—
New York	79	38	10	1,447	85	53	671	106	37
Cardif	—	—	—	148	4	1	38	2	0
Total	260,563	110,295	41,695	237,309	151,094	44,091	139,412	160,827	21,178

itability of savings type products and forced life insurers to reprice all major products.

With consistent improvements in persistency rates and a shift toward protection products, life insurers are predicting that the duration of liabilities will lengthen. This will create the need for appropriate asset-liability management. This is particularly true for whole life products, which are believed to have a duration period of greater than 10 years. Most life insurers have sold these products heavily in the last few years.

Outlook

Much of the restructuring necessary to ensure the continued viability of the Korean life insurance industry appears to be successful. By looking at the financial results of FY2002, most companies have announced profits that were not seen before the economic crisis. However, the industry still faces many challenges.

Major challenges include:

- Competition and partnership with other financial institutions
- Introduction of innovative products
- Identification of new profit sources
- Development of efficient alternative distribution channels

Since the introduction of bancassurance in August 2003, life insurers have learned to work and compete with other financial institutions. From our observation of the failure of the joint ventures with foreigners in the local life insurance industry, success in bancassurance may be difficult unless banks and insurers learn to work together.

As we noted in previous sections, life insurers will see a lot more market opportunities, but they will also encounter new competitors in other financial institutions.

Introducing innovative new products will be critical for life insurers to effectively serve consumers and compete with these financial institutions.

Korean life companies have enjoyed heavy expense loading in premiums during the last few years. Without question, expense loading was a main source of profit for them to overcome the financial difficulties after the economic crisis. They can expect more pressure to reduce the loading significantly if they want to compete with other financial institutions in new areas, such as bancassurance, corporate pensions and investment-linked products.

These companies should also realize their current distribution channels might not be efficient enough to deliver their new products to consumers. Their current channels may not be adequate to actively sell their innovative products in different markets.

Korean life insurers overcame difficult times in the past simply by downsizing their operations and becoming more cost efficient. However, the newly emerging business environment will require substantial changes, including new business operations and company structures. This will be the real challenge. □

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CONGRATULATIONS!

The following are newly-elected members of the International Section Council. They will each serve a three-year term, beginning in October 2004:

Frank J. Buck—Deloitte Actuarial & Insurance Solutions, New York, NY

Michelle P. Chong Tai-Bell—Analytics Limited, Trinidad, West Indies

David S. Parmee—AIMS Practice, PricewaterhouseCoopers, London, United Kingdom

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