Evidencing Care, Skill and Caution in The Management of ILITs

(Part 3 of 4)

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The third of a four-part series on the administration of life insurance as an asset of a trust. The first part discusses the duties of trustees under different models for administering an irrevocable life insurance trust. The second part examines the impact of the Prudent Investor Rule on holding life insurance in a trust. The third part describes one approach that trustees may take in evaluating the appropriateness of insurance as an asset in a particular trust. The final part deals with how best to develop and communicate policy management guidelines for the decisions that will be faced.

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PART 3: EVIDENCING CARE, SKILL AND CAUTION IN THE MANAGEMENT OF ILITS

§3.1 THE QUANDRY OF THE ILIT TRUSTEE

The challenges for demonstrating prudent administration of an irrevocable life insurance trust ("ILIT") are daunting. The trustee must negotiate what seems to be a difficult impasse. The advice literature for ILIT trustees recommends certain due care activities:

1. Determining the prudence and suitability of the insurance policy at trust inception;
2. Monitoring, over time, policy performance as well as the financial condition of the underwriting carrier;
3. Evaluating the merits and liabilities of trustee actions concerning exercise of various policy rights and options including the right to suspend or discontinue payments for the purposes of policy surrender or replacement, the rights to execute loan transactions or non-forfeiture value options, and so forth.

Independent academic research, however, suggests that it is not possible to construct reliable models for prediction of carrier insolvency[1]; it is not possible to use computer-generated illustrations to predict policy performance or to compare the policies of two or

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[1] If it were possible to construct a predictive model with a high degree of certainty, industry regulators would simply step in and demand corrective action by management prior to the point of corporate financial peril. Absent fraud and other types of malfeasance, the risk of carrier insolvency would disappear; and, the public and trustees responsible for demonstrating care, skill and caution could breath a sigh of relief. The fact that state insurance departments are constantly surprised by sudden changes in insurance company financial condition (not to mention the sudden economic and regulatory shocks to the industry in general), suggests that evaluating the financial soundness of insurance carriers is a task that remains largely elusive. Independent rating services also struggle with solvency prediction and, from time-to-time, assign high ratings to carriers shortly before regulators seize them.

more companies[2]; and it is not obvious which course of action has the greatest probability of financial success and, therefore, the greatest utility for trust beneficiaries.[3] Particularly distressing is the fact that the advice literature rarely provides the trustee with the wherewithal to make informed decisions regarding policy administration if an alert trustee determines that a carrier's financial rating is deteriorating. It is one thing to advise a trustee to monitor investment securities that may be bought and sold in a deep, liquid and continuously traded market where relative informational efficiency promotes fairly valued prices, and where transaction costs are not onerous. It is quite another thing, however, to tell the trustee to monitor insurance carrier financial soundness so that reasonable actions may forestall financial catastrophe for the ILIT. If rating agencies revise a carrier's financial rating downwards, what is the proper response? If a termination or policy replacement means that thousands of dollars of cash value are lost because of surrender charges, new policy acquisition expenses, or low cash value accumulations during the first few policy years, is this not also a financial catastrophe? In fact, is it prudent to incur a known and certain loss of asset value in the mere hope that the replacement carrier will avoid future financial difficulties and that the replacement coverage will perform as illustrated?

Certain commentary suggests that the trustee is responsible for comparing, perhaps on an annual basis, the existing policy to a wide range of alternative insurance products to assure that trust beneficiaries are not shortchanged by a failure to acquire a replacement policy projecting superior values. The implication of many sales pitches is that the trustee has a duty to maximize return by finding the best deal; or, alternatively, has a duty to minimize cost by funding death benefits at the lowest possible premium. Absent specific directions in the trust instrument, however, it is difficult to find such duties in trust common law or in the statutory and judicial interpretations thereof. Certainly, it is not a per se breach if trustees fail to buy the hottest performing stock during an up market, if they fail to put all assets in 30-day U.S. Treasuries during a down market, or if they fail to establish equity positions via the lower-cost derivatives markets rather than the cash markets. At the end of the day, it seems that ILIT trustees are not only faced with administrative impossibilities but are susceptible to surcharge for fiduciary breach either because they follow due care standards that are largely inadequate to the tasks for which they are designed, or because they don't.

How did this impasse arise and what is the solution? The roots of the conundrum are, in part, traceable to the fact that insurance marketers, motivated by a compensation system that rewards a high volume of transactions, shaped the tone and structure of discourse by co-opting Restatement Third vocabulary to promote "proofs" that existing trust-owned policies are inferior or unsafe and that a straightforward remedy is replacement with a better, newer, more high-performance insurance policy. The economic regime at the time of Restatement Third's adoption by The American Law Institute (1992) was one of declining interest rates and falling yields on the general accounts of insurance carriers. A crisis in policy funding emerged as dividend and interest credits systematically failed to equal the levels projected on policy illustrations. Furthermore, the industry environment was characterized by extreme turmoil and uncertainty following the collapse of several major carriers in the late 1980s and early

[2] Miller, Walter N., "Special Report: How Companies Are Answering the IQ," *Journal of the American Society of CLU & ChFC* (March, 1996), p. 82: "…illustrations by themselves should never be used to compare policies in different companies (or even worse, the companies themselves)." See also the American Society of Actuaries Actuarial Standard of Practice No. 24 which states: "Since a sales illustration is simply an extension of the current scale of non-guaranteed elements into the future assuming current assumptions hold to that point, actual non-guaranteed elements will almost certainly vary from those illustrated. Different companies will experience different variances from illustrated values." Several recent studies confirm the perils of relying on values projected on computer illustrations. One study of policy yields on Universal Life contracts [Carson, James M. & Forster, Mark D., "An Analysis of Life Insurance Illustrations," *Journal of Insurance Regulation* (Summer, 1997), pp. 480-501] concludes that: "even after the Life Insurance Illustration Model Regulation (1995), illustrations do not provide adequate disclosure of the non-guaranteed nature of life insurance…." Another recent research paper evaluating the effectiveness of insurance product and price disclosures [Kirsch, Larry, "Do Product Disclosures Inform and Safeguard Insurance Policyholders?," *Journal of Insurance Regulation* (Spring, 2002), pp. 271-295] concludes that disclosure messages on sales illustrations do not provide clear and accurate disclosure and that "insurers may manipulate consumers to their detriment."

[3] Babbel, David F. and Santomero, Anthony M., "Risk Management by Insurers: An Analysis of the Process," *Investment Management for Insurers* (Frank J. Fabozzi Associates, 1999), p. 24: "Perhaps the area of greatest concern in the area of actuarial risk is the misalignment of incentives between owners of the insurance firm and its sales and marketing staff…. The typical arrangement is to pay commissions for sales of new policies, with the commissions on a multiperiod contract heavily front-loaded…. This creates a tremendous incentive for agents to sell as much business as possible, whether it is profitable for the company or not. It also creates strong incentives to replace existing policies, whose commission rates have dwindled to the low single digit percentage range, with new policies that pay commissions ranging from 20 to 100% of the first year premiums. Sales managers and marketing personnel are also often rewarded based on volume of sales. Even senior management may sometimes have their compensation tied to sales growth."

1990s. Therefore, it is not surprising to find ILIT trustees under increasing pressure to take some type of action to avoid the appearance of indifference to beneficiary interests or paralysis in the face of difficult asset administration choices. Unfortunately, replacement policies were often misrepresented both with respect to their expected returns and attendant risks; and, ultimately, may be worse than those that were abandoned by the trustee.[4]

§3.2 A PATH TO PRUDENCE: BENCHMARK MODELS

Several decades ago, the professional money management industry in the United States was plagued by extensive gamesmanship in the calculation, reporting and presentation of investment returns. Consumers of investment services found it particularly difficult to determine which managers added value after fees and expenses. Although money managers attract clients primarily on the basis of promoting their performance track record, evaluating investment track records from the single dimensional perspective of return can lead to flawed judgments regarding manager skill. Capital market theory suggests that, in the long-term, the manager that earns the greatest return may be the manager that assumes the greatest risk; and some managers are tempted to form high-risk portfolios in hopes of winning the rate-of-return horse race. The investment community, however, recognized that risk was also a critically important determinate of managerial skill. Outperforming the S&P 500 stock index by assuming greater risk is no more an indication of skill than underperforming the index at lower risk indicates a lack of skill. A valid benchmark re-calibrates manager returns to reflect their degree of risk exposure. The performance metric changes from "what return did the manager earn," to "what return should the manager have earned given the degree of risk in the investment strategy." Today, prudent investment performance evaluation uses customized benchmarks to make accurate measurements of both skill and risk.

The critical point to note is that prior to the employment of modern portfolio risk-adjusted performance evaluation methods, it was particularly difficult to compare investment managers. Each manager had a unique product to offer in the sense that no two portfolios manifested similar holdings, volatility, factor exposures, etc. Any manager could make the case that he or she employs a superior investment strategy; those managers who generate high rates of return, either by skill or luck, may use circular reasoning as a proof of such skill. But this is comparable to the competing claims of insurance agents who aspire to make the case for the products and companies that they represent. One company has superior mortality experience, one has higher asset yields, one has lower loan utilization rates, one has lower lapse and surrender rates, one has higher dividend or interest crediting rates, one has a better financial strength rating, and so forth. This is an endless parade of marketing claims few of which can provide helpful information to the ILIT trustee seeking to acquire new insurance or to evaluate an existing policy. Many of the insurance company performance characteristics touted by marketing departments are amalgams of various actuarial and expense factors which differ markedly from company to company and thus make it impossible to determine the true merits of their marketing declarations.[5]

As noted, an insurance policy's future performance is a random variable dependent upon the interaction (joint distribution) of results from several stochastic processes (including the date of the insured's death). The purpose of an insurance benchmark model is to help the trustee understand the degree to which any policy is subject to mispricing risk. If an insurance company fails to collect premiums sufficient to fund projected (non-guaranteed) benefits, the trust will be faced with the necessity of additional out-of-pocket premiums in order to maintain coverage. Failure to charge a sufficient premium means that the contract is mispriced.

Generally speaking, an insurance benchmark model is an objective model of insurance costs and benefits that incorporates reasonable assumptions regarding the timing, probability, magnitude, and risk of all cash flows. James C. H. Anderson, in a seminal work published in 1959, lists the relevant variables that a valid life insurance benchmark must address:

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[4] Although beyond the scope of this essay, there is a growing awareness of an agent propensity to show "apples-to-oranges" comparisons between various types of policy expected returns and risks. Variable Life products have often been the vehicles of replacement choice for agents wishing to replace (or twist) fixed-income contracts like Whole Life and Universal Life. See, for example, Kelley, Paul S., "Selecting Vanishing Premiums: Decisions Under Uncertainty," *Journal of Financial Planning* (October, 1994), pp. 160-167; and Moyse, John S., "Right & Wrong Reasons for Policy Replacements," *National Underwriter* (January 10, 2000), pp. 11-12. Carson, James M., & Forster, Mark D., "The Merits of In-Force Cash Value Life Insurance," *Journal of Financial Service Professionals* (2002), pp. 69-75 provide a more comprehensive analysis of the retain-or-replace decision. See also, Collins, Patrick J. and Jurkat, Dieter, "The Decision to Replace Trust Owned Life Insurance Policies," *The Banking Law Journal* (November/December 2005), pp. 975-1005.

[5] Miller, *supra* at 83: "The frequency of this practice provides strong evidence for the proposition that any attempt to make a meaningful comparison of cost of insurance charges between companies is almost certainly doomed and will probably produce misleading results."

- The probability of collecting premiums;
- The interest earned on accumulated funds;
- The benefits paid upon death and policy termination (lapse, surrender, or maturity);
- Policy expenses;
- Charges assessed for contingencies; and,
- The basis for calculating reserve liabilities established for future benefits.[6]

The interaction of the critical components within a well-constructed model allows for a richer level of insight into the likelihood that a policy's actual assumptions are in fact reasonable. Some models act like generic asset share pricing models while other models utilize a probability-adjusted net present value analysis. Regardless of how the model is constructed, however, the model user can control underlying assumptions regarding mortality, expenses, lapses and other variables of interest to assure a comfortable degree of conservatism. A benchmark cannot predict how any single insurance policy will perform. Rather it provides insight into the relative pricing risk of the policy or policies under evaluation.[7] To the extent that the benchmark suggests that there is a funding shortage, the trustee can logically infer that the assumptions underlying the illustrated benefits are, in fact, more aggressive than the known assumptions incorporated into the benchmark.[8]

The value of using independent, objective benchmarks has long been recognized for judging performance within the investment industry. Failure to use benchmarks often results in a high level of "gamesmanship" in order to construct a jury-rigged performance track record. The moral hazard of gamed track records in the securities industry is similar to the hazard of gamed illustrations in the insurance industry. Indeed, many naive investors still succumb to sales pitches based on "horse-race" analogies. The investment manager with the best rate of return is the winning horse. A superlative track record may, in fact, be masking levels of risk that are intolerable. Without careful statistical analysis, the investor may not be aware that the winning horse is just one lap away from a catastrophic breakdown. Benchmark comparison avoids many of these difficulties and is a particularly powerful tool because it allows for policy comparisons and evaluations on a level playing field. The benchmark assumptions produce risk-adjusted data that can help trustees make legally defensible and academically sound judgments.

The analogy between the competing and difficult-to-verify claims of money managers and the claims of insurance agents suggests a solution to the vexing problem of comparing insurance products either by means of computer-generated illustrations, or by reason of marketing claims based on selectively presented financial information. If the agent-produced illustration/financial data for company A cannot nor should not be compared to the illustration/financial data for company B, how is the trustee to make an informed and prudent decision with respect to either? Just as use of appropriate benchmarks levels the playing field between investment managers and facilitates accurate measurement of investment skills and risks so, also, benchmarks can put competing insurance products on a level playing field to generate meaningful risk/reward insights and comparisons.

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[6] Anderson, J.C.H., "Gross Premium Calculations and Profit Measurement for Nonparticipating Insurance," *Transactions of Society of Actuaries* (Vol. XI, 1959), pp. 357-394. Anderson was interested in finding a method for calculating the gross premium for nonparticipating insurance contracts. His formula, therefore, has an additional factor for the carrier's profit objectives. The insurance purchaser, however, is interested in knowing the likelihood that the benefits credited to the policy after the insurance carrier has realized its profit can be supported by the illustrated premium schedule. If a policy fails, it is not because the carrier fails to make a profit on it; rather, it fails because the after-profit funding is insufficient to support the illustrated values.

[7] Collins, Patrick J., "Is it Prudent and Suitable? Estimating the Value of Trust Owned Life Insurance," *California Trusts and Estates Quarterly* (Winter, 1998).

[8] Consulting actuaries sometimes use commercially available product pricing software programs. These programs are primarily designed for insurance company profit testing but can raise interesting and important questions regarding the likelihood that the carrier will be able to provide projected benefits. There are several insurance advisory services that use benchmark analysis. Peter Katt and Glenn Daily are independent insurance advisors that jointly developed an asset share like model (The Beacon Model). Peter Katt can be contacted at www.peterkatt.com; Glenn Daily can be contacted at www.glenndaily.com. Schultz Collins Lawson Chambers, Inc. [SCLC] is Independent Investment Counsel specializing in assisting trustees of both qualified retirement plans and non-qualified trusts [www.schultzcollins.com]. SCLC utilizes the Collins/Jurkat benchmark model that is designed on the classical actuarial model used to calculate net level premium reserves. That is to say, it employs a mortality table that increases monotonically with age and either a single interest rate that serves as a prospective discount factor, or the term structure of interest rates as derived from spot rates on risk-free government bonds or on risk-free securities plus a credit (corporate bond rate premium) spread. However, the benchmark incorporates both lapse and expense factors. Illustrated benefits are what remain after the carrier has determined its targeted profit. The model subtracts the (probability adjusted) present value of future benefits from the (probability adjusted) present value of future premiums. Actuarially, reserves (the funds that insurance carriers must place on the liability side of their balance sheets in order to fund promised benefits) calculated prospectively through the use of a discount factor are equal to reserves that are calculated retrospectively by subtracting accumulated benefits paid in the past from accumulated premiums plus interest earnings.

Academic research suggests that it is not possible to compare directly policies in different companies (or different policy types in the same company), and that it is not possible to project accurately the future performance of any policy from a computer-generated sales illustration. It is, however, possible to build a benchmark insurance policy pricing model with assumptions that are known and that have a comfortable degree of conservatism. It is a straightforward task to compare policy A to the benchmark and to compare policy B to the same benchmark; and, by mathematical inference, to generate a valid comparison of A with B. The benchmark informs us about the degree of pricing risk in each of the illustrated policies. The benchmark cannot tell us how each of the policies will actually perform in the future (only a crystal ball can do this), but it can provide information regarding the likelihood that the insurance carrier can provide the projected benefits without asking for premiums greater than those illustrated.

The benchmark approach changes the nature of the discourse by eliminating sales pitches based on funding maximum benefits for the lowest premium costs, or on maximizing rates of return without regard to underlying risks. The benchmark approach allows the decision-making process to shift to a consideration of the likelihood that the insurance program can discharge successfully the economic objectives of the settlor. The life insurance evaluation process can profitably and comfortably incorporate many of the tools and techniques developed by the investment management industry to cut through the gamesmanship that plagues the insurance industry and to put the stewardship of ILIT policies on a firmer basis.

§3.3 BENCHMARK ANALYSIS; POLICY EVALUATION; FIDUCIARY MONITORING AND SURVEILLANCE

Just as there is no single, inflexible or monolithic standard for prudent ILIT administration, there is no single correct way to build benchmark insurance pricing models (although there are many ways to build them incorrectly). An examination of the literature shows several models that may be adopted by ILIT trustees and that lend themselves to straightforward calculation platforms such as Microsoft Excel. One example is the Cost/Benefit Ratio model developed by finance professor D. Cho.[9] Following an evaluation of traditional "event driven" measures of insurance costs such as the interest-adjusted cost index methods, Cho concludes that such measures provide only point estimates for time intervals that may not be relevant for consumers (i.e., consistent with policyowner or beneficiary utility), and that may be subject to various manipulations by product manufacturers. His model is a group average model that conforms to modern portfolio theory methods of evaluation in that it is an "expected value" model. That is to say, it adjusts all projected cash values and death benefits in terms of the probability of their receipt and projects all premiums in terms of the probability of their payment. Thus, his model incorporates liquidity risk (for early lapses and surrenders), retention probabilities (survivors electing to continue coverage), mortality risk (risk of living beyond the date at which the present value of the insurance death benefit exceeds the present value of premium costs) and other relevant variables (e.g., joint probabilities for mortality and lapse risk, time value of money, etc.).

Cho's list of the advantages of his group average insurance pricing model is especially noteworthy because it encompasses many of the major asset administration issues faced by ILIT trustees who must evaluate, presumably on an annual basis, the merits of policy retention, lapse, surrender or replacement options. Cho specifically compares the C/B [Cost/Benefit] Ratio to the traditional point-estimate SCI [Surrender Cost Index] measure of insurance value:

1. "Unlike the SCI, the proposed index is founded on expected utility theory, and is therefore theoretically superior. Although the cost of whole life insurance exceeds its benefit, some people buy it because it reduces fear and worry and provides more utility.
2. "The C/B ratio makes more sense to unhealthy people who may not survive the planning period because death protection is counted in this ratio.
3. "The C/B ratio is also useful to the policyowners who may terminate the contracts before the planning period, because the probability of policy lapse is considered in this ratio. The insureds may wish to replace present policies with new products offering better policy terms or options. Also, they may terminate them early if the market interest rate rises dramatically, in which case the CV [Cash Value] with a low fixed rate becomes less attractive.
4. "The C/B ratio is good for the insureds who may keep the policies beyond the time hori-

[9] Cho, Dongsae, "The Cost/Benefit Ratio: An Ex-Ante Life Insurance Cost Disclosure Index," *The Journal of Insurance Issues* (Fall, 1997), pp. 160-180.

zon. In the SCI, only the ending CV and TD [Terminal Dividend] are counted; therefore, if the policy is kept beyond the period, the SCI will drop substantially below the original index value, because the CV builds up at an increasing pace over time. However, in the C/B ratio, the intermediate CVs and TDs are adjusted for the probability of lapse, and hence it should not change dramatically even if the policyowner goes beyond the period."[10]

Although Cho intends the model to function primarily as a tool for disclosing the expected future costs of life insurance protection, it can be generalized for use in comparing new policies that the trustee contemplates adding to the trust estate; in comparing an existing policy to a replacement alternative; or in comparing the future economic consequences of exercising current policy options to repay loans, increase or decrease premiums, elect policy non-forfeiture rights, evaluate split-dollar termination strategies, etc.

The benchmark insurance policy pricing model developed independently by Collins and Jurkat incorporates additional functionality that easily encompasses broad-scope asset management issues faced by ILIT trustees.[11] The model employs a group average analytical methodology similar to the Cho model. It incorporates all of Cho's adjustments for mortality and lapse expectations and, additionally, adjustments for health status and policy expenses (commissions and other costs generally associated with the policy type, premium and face amount). Rather than evaluating the cost/benefit ratio, it focuses on the expectation of underfunding when using the benchmark model and on the magnitude of the possible underfunding.

The methodology does not project actual performance for a specific policy (this task remains a statistical impossibility); but, rather, shows the expected average underfunding implied by the benchmark model. Likewise, the model does not test for the risk that the insurance carrier will fail to achieve its profitability targets.[12]

Trustees managing trust-owned life insurance have several options available to them. They can:

1. Continue to maintain the coverage under the current schedule of benefits and premiums;
2. Add additional funds to the contract (or, equivalently, pay down policy indebtedness including repayment obligations under split dollar financing arrangements);
3. Reduce the face amount of coverage; or,
4. Exercise their non-forfeiture options or the option to surrender the contract.

Thus, for a new insurance policy purchase decision, or for an asset administration decision with respect to existing insurance, a benchmark model provides insight into the range of probable outcomes over multi-year planning horizons. Benchmark pricing models based on group average methodologies, because they do not warrant the actual future performance of any specific contract and, because they provide ILIT trustees with a broad range of important information into expected rewards and risks of the trust's insurance portfolio, appear to represent an especially promising avenue for achieving prudent asset administration at a reasonable level of administrative resources. A written report based on a benchmark analysis can serve as the basis for documenting the prudence of initial policy selection and insurance portfolio construction as well as the basis for producing ongoing fiduciary monitoring and performance evaluation reports for interested parties.

§3.4 SAMPLE BENCHMARK ANALYSIS: NEW POLICY PURCHASE

The forthcoming section provides a fact pattern commonly found in the estate-planning context. The grantors/insureds are preferred risk non-smokers ages 39 (male) and 38 (female). They are successful entre-

[10] *Id.,* at 169-170.

[11] Collins, "Is it Prudent and Suitable? Estimating the Value of Trust Owned Life Insurance," *supra.*

[12] As indicated, the Collins/Jurkat benchmark model is, in some respects, similar to pricing models using the Net Level Premium Reserve calculation methodology with prospective actuarial formulae (Reserve = Present Value of Benefits – Present Value of Premiums). However, it adjusts for mortality, expense, and interest factors to bring the benchmark more into line with actual experience. Therefore, it differs from mandated statutory valuations for reserve calculations. For example, the model eliminates use of expense reallocations according to preliminary term methods of reserve valuations in favor of matching costs (projected benefits to insureds) and revenues (premiums collected from the surviving and non-lapsing policyowners) as they unfold over the applicable planning horizon.

For statutory accounting purposes, the Net Level Premium Reserve calculation is a purely computational devise wherein the future benefits are not the actual contract benefits and the future premiums are not the actual "gross premiums" charged to the policyowner. It is designed to provide regulators with a measure of capital required for safe operation of an insurance company. Bartlett, Dwight K. & McGill, Dan M., "History of the Development of Preliminary Term Methods of Valuation of Life Insurance Policies in the United States," *Journal of Insurance Regulation* (Spring, 1997), pp. 382-401. Rather than solving the equation for required Reserve, the Collins/Jurkat benchmark model cumulates, given reasonable assumptions, the differential between PV of Benefits and PV of Premiums to determine the extent of expected average shortfall.

preneurs and their insurance objective is to hedge the risk of forced liquidation of an ownership interest in a closely-held business by establishing a stock purchase arrangement with an ILIT. Target insurance proceeds amount to $10 million. The hypothetical fact pattern assumes that the grantors have received an insurance proposal that recommends purchase of a second-to-die universal life policy from the ABC insurance company. The agent has made a seemingly persuasive argument in favor of his product and company and the trustee has been asked to apply for the policy. The trustee engages the services of an advisor/insurance analyst to review the computer-generated illustration for the insurance plan. The advisor/insurance analyst employs a group average valuation approach using comparative benchmark methodology. The report is, in many respects, analogous to the Pre-purchase Analysis recommended by the OCC in its directive to national banks wishing to purchase insurance coverage.[13] It is a "basic" report in that it provides insight into the:

1. Financial risks and rewards of purchasing the insurance policy;
2. Merits or disadvantages of using life insurance to hedge against forced liquidation of assets; and,
3. Options for policy design and insurance portfolio diversification.

It does not extend the analysis by comparing the insurance-based solution to estate liquidity needs with other strategies and products.

By contrast, if an existing trust-owned insurance policy is the subject of evaluation, the report may cover other topics including policy loan payment options, revisions in the face of revised split-dollar regulations, and so forth. If a trustee is purchasing an insurance contract for investment-oriented reasons (*e.g.,* dynasty trust funding), the report may compare the range of after-tax payoffs from an insurance contract (lower bound equal to guaranteed values and benefits) with the range of after-tax payoffs from suitable investment alternatives.

§ 3.5 SAMPLE REPORT

Background and Report Structure

This report evaluates a trust-owned Second-To-Die Universal Life insurance program underwritten by ABC Life Insurance Company with an initial face amount (death benefit) of $10,000,000.

The ABC Life policy projects an annual premium cost of $54,861 for the initial ten contract years. No additional payments are scheduled thereafter. Illustrated premiums and benefits reflect a preferred health status as well as a non-smoker rate classification for each insured.

The report provides an in-depth comparison between the ABC life policy and a comparative benchmark model. The model calculates expected average future values and provides information regarding the relative credibility of the ABC life policy's projected costs and benefits. Following examination of ABC's projected policy values, the analysis incorporates suggested modifications to the premium schedule and discusses the economic consequences of such modifications. Finally, it offers general observations regarding prudent design and implementation of insurance portfolios.

Conformity with the "Prudent Investor" Standard

Whereas an irrevocable trust will own the insurance contract, the report reflects an understanding of the fiduciary duties promulgated in the American Law Institute's Restatement of the Law: Trusts, 1992. These duties are commonly referred to as the Prudent Investor Rules:

> *The Trustee is under a duty to the beneficiaries to invest and manage the funds of the trust as a prudent investor would, in light of the purposes, terms, distribution requirements, and other circumstances of the trust. This standard requires the exercise of reasonable care, skill, and caution, and is to be applied to investments not in isolation but in the context of the trust portfolio and as a part of an overall investment strategy, which should incorporate risk and return objectives reasonably suitable to the trust. In making and implementing investment decisions, the trustee has a duty to diversify the investments of the trust unless, under the circumstances, it is prudent not to do so.*

The analysis is intended to help document a level of care, skill and caution consistent with a prudent decision-making process under the Prudent Investor standard. The advisor claims no special knowledge or expertise in trust law, nor does the advisor seek to offer legal, tax or accounting advice. Legal counsel should be retained to make final determinations regarding the applicability of federal and state statutes.

[13] "Bank Purchases of Life Insurance: Guidelines for National Banks," *Bulletin 96-51* (September 20, 1996).

Benchmarking Insurance Illustrations

Although ABC Life provides a detailed year-by-year cash flow projection of policy costs and benefits, the computer-generated policy illustration is not intended to predict actual performance. Illustrations are financial documents prepared by a product vendor and, like any financial statement prepared by company management and disseminated to the public by a marketing department, they should be examined critically in order to ascertain the extent of possible manipulation. Just as values on corporate financial statements can vary greatly because of management's choice of accounting conventions (inventory valuation methods, depreciation schedules, off-balance-sheet debt financing, and so forth), so the values projected in life insurance illustrations can be manipulated by a variety of actuarial conventions (mortality projections, lapse rate assumptions, administrative expense allocation, and so forth).

Fortunately, computer projections depict the worst-case scenario in the "guaranteed values" column of the sales illustration. Unfortunately, however, the actual assumptions that underlie policy illustrations are proprietary information and, without knowing the assumptions underlying product pricing, it is difficult to determine how changes in a single variable (such as the credited interest rate) reflect the actual risks of the policy. Actuaries call this "pricing risk." If there is a high degree of pricing risk (for example, each relevant variable can be at the upper bound of "reasonableness" but the assumption that all variables will interact simultaneously at their upper bound levels may be unreasonable), then there is a high probability that the insurance contract will fail to deliver projected values absent additional premiums. In the case of ABC, the company is willing to guarantee the death benefit through age 100 only upon payment of a substantially higher annual premium ($98,363 plus adherence to all other applicable terms and conditions). The "no-lapse" guarantee requires continuation of the premium payments throughout all remaining policy years. This is a critical piece of information because, although the trust hopes it purchases the illustrated non-guaranteed product, the trust contracts with the insurance company to purchase only the guaranteed benefits. In this case, the guaranteed product lapses at joint age 72/71 with a loss of all value.

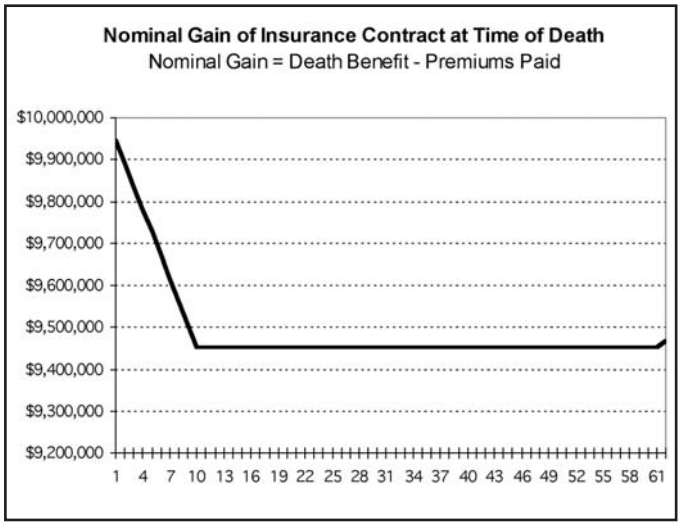
An insurance policy's actual future performance is a random variable dependent upon the interaction (joint distribution) of results from several stochastic processes (including the date of the insured's death, interest rate credits, mortality charges, etc.). The purpose of a benchmark model, such as the one used in this report, is to help the policyowner understand the degree to which a policy is subject to mispricing risk. If an insurance company fails to collect premiums sufficient to fund projected (non-guaranteed) benefits, the trust will be faced with the necessity of paying additional premiums to maintain coverage. Failure to charge a sufficient premium means that the contract is mispriced.

Generally speaking, a benchmark is an objective model of insurance benefits that incorporates reasonable assumptions regarding the timing, probability, magnitude, and risk of all cash flows. The interaction of the critical components within a well-constructed benchmark allows for a richer level of insight into the likelihood that a policy's actual assumptions are, in fact, reasonable. A benchmark cannot predict how any single insurance policy will perform. Rather it provides insight into the relative pricing risk of the policy under evaluation. To the extent that the benchmark suggests that there is a funding shortage, the policyowner can logically infer that the assumptions underlying the illustrated benefits are, in fact, more aggressive than the known assumptions incorporated into the benchmark. Finally, although a seemingly technical detail, it is important to note that the benchmark employs the group-average analytical methodology that determines the viability of a block of comparable policies (with insureds dying or surrendering at various points in time) rather than a specific policy (with a forecasted surrender or death at a fixed point in time).

Nominal Insurance Benefits

The nominal net gain of an insurance policy is defined as the projected death benefit less the sum of projected yearly premiums. It therefore represents the future benefits promised by the insurance carrier after subtracting the premium cost of the policy. Figure One is a graphical depiction of the carrier's net death benefit projections:

Figure One



The above chart reflects the dollar values illustrated by the ABC insurance company. The projected gross death benefit remains level through policy year 61. Provided that the death of the second insured occurs after policy year 62, the projected death benefit is greater than the initial $10,000,000 face amount.

In many respects, the remainder of this report is a commentary on and test of the reasonableness of this picture. The primary tool used to evaluate its reasonableness is the comparative and objective benchmark pricing model. In the following sections, the advisor develops a base-case model that considers three critical variables:

1. Mortality: The model uses the Society of Actuaries [SOA] RP 2000 mortality table. This table fits data derived primarily from the population of retirees from companies offering defined benefit pension plans. The advisor incorporates several SOA adjustments including factors for health (retirements for causes other than disability), occupation (white-collar retirees) and compensation (large annuity benefits). The adjustments provide a population with mortality experience comparable to the group of insureds medically underwritten by life insurance companies.
2. Discount Rate: The applicable interest or discount rate is a bridge that ties the value of money in today's dollars to the value of money received in the future. Future dollars (both premium payments and insurance policy benefits) are worth less in the future than they are worth today and, therefore, to provide an "apples-to-apples" comparison, they must be discounted at an appropriate rate of interest. The report employs three discounting methods: (1) future cash flows are discounted by a fixed 5% rate of interest in all future years; (2) future cash flows are discounted by the term structure of interest rates as proxied by the implied forward yield curve derived from spot rates of U.S. Treasuries at various maturities from 3 months to 30 years and (3) future cash flows are discounted by the term structure of interest rates plus a fifty basis point addition to represent a credit risk spread for securities subject to default.
3. Policy Frictions: The comparative pricing model incorporates several vectors which represent reasonable approximations to the sequence of policy lapses as well as expenses associated with policy sales, underwriting and administration.

Specifically, the base case model is a function of the force of mortality represented by the SOA RP 2000 table, the term structure of interest rates as of September 15, 2003, and a moderate load vector of policy lapses and administrative/sales/underwriting expenses (7% initial lapse rate declining to 4% by year seven and remaining constant thereafter; and an expense factor of 110% of premium in year one, 15% in year two, and 7% for the next eight years; whereas expenses are a function of premium paid, the model assigns a 0% policy expense rate in all years without a scheduled premium payment).

Present Value Analysis

Although the magnitude of the projected net death benefit appears substantial, it must be tempered by the realization that (1) it is based on non-guaranteed values; and (2) it may be many years before the projected net benefit is received by the trust. Therefore, to portray the economic effect of cash flows more accurately, we adjust future cash receipts by the appropriate discount factor. Figure Two (*see page 154*) depicts present value net benefit of the ABC insurance policy illustration over the applicable planning horizon.

When the time value of money is considered, the economic value of the net death benefits systematically diminishes through time. If the receipt of death benefits is delayed for too long of a period, their future, discounted value will be less than the present value of the aggregate premiums. That is to say, if you live too long, the insurance contract will have subtracted value from the trust estate. Based on the term structure of interest discounting, and based on the projected policy values and scheduled annual premiums, the insurance policy under evaluation will begin to subtract value in year 61. Given the force of mortality embodied in the RP 2000 data, the probability of a negative net present value *(assuming that illustrated values are credible)* is approximately 7.4%.

Figure Three (*see page 154*) compares the net present value of the ABC policy illustration under three discounting scenarios: (1) the term structure of interest rates; (2) the term structure with credit spread; and (3) a fixed 5% discount rate. In all cases, given a sufficiently long planning horizon, the contracts result in a negative net present value.

It is important to remember that Figures Two and Three represent a best case or upper-bound projection of the product manufacturer. The lower-bound case (projections at the guaranteed assumptions and policy charges) shows a policy lapse at joint age 72/71 with a complete loss of all value. The lower-bound result generates a present value loss of $470,982 (the discounted present value of all scheduled premiums).

Figure Two

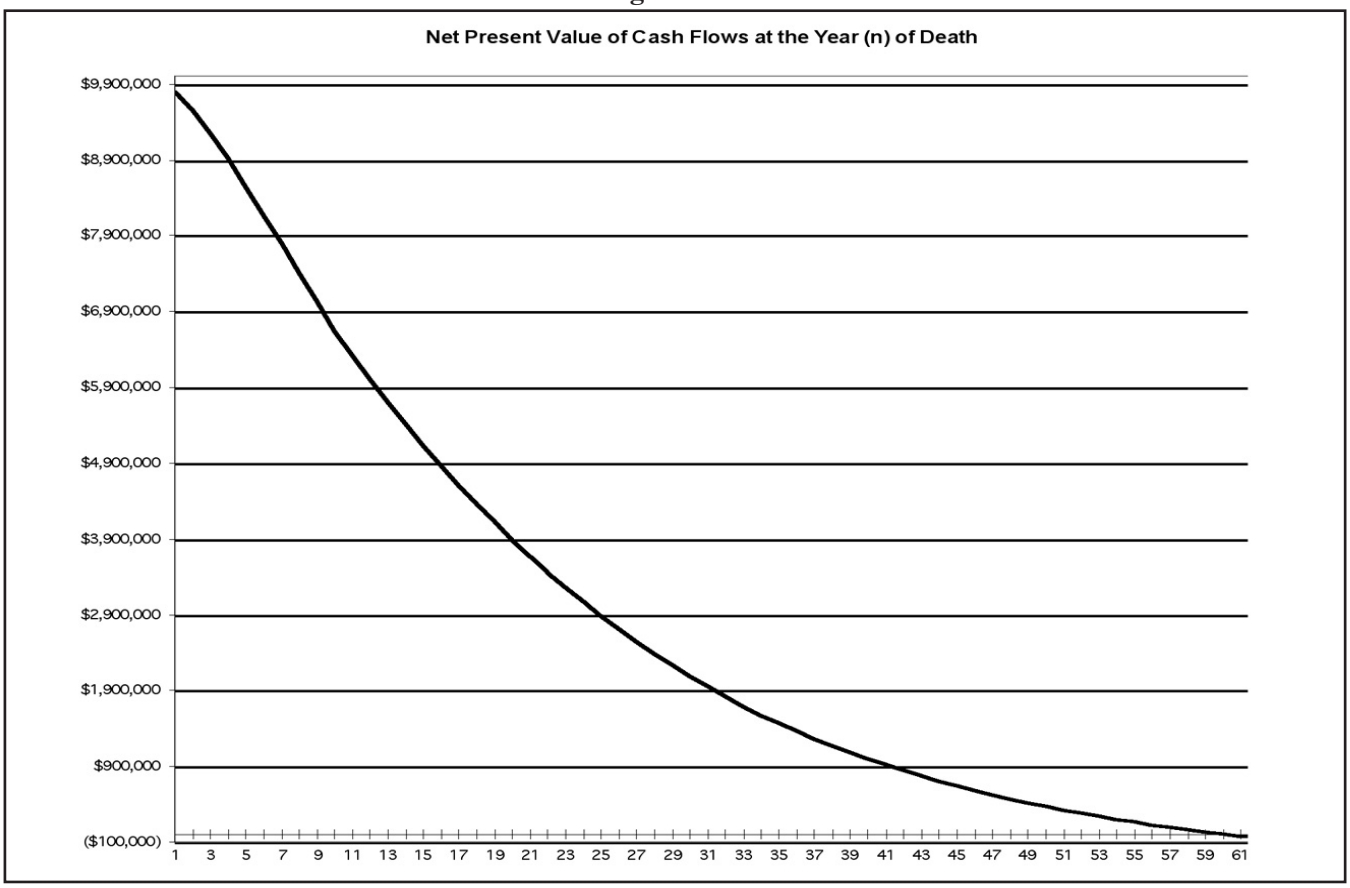
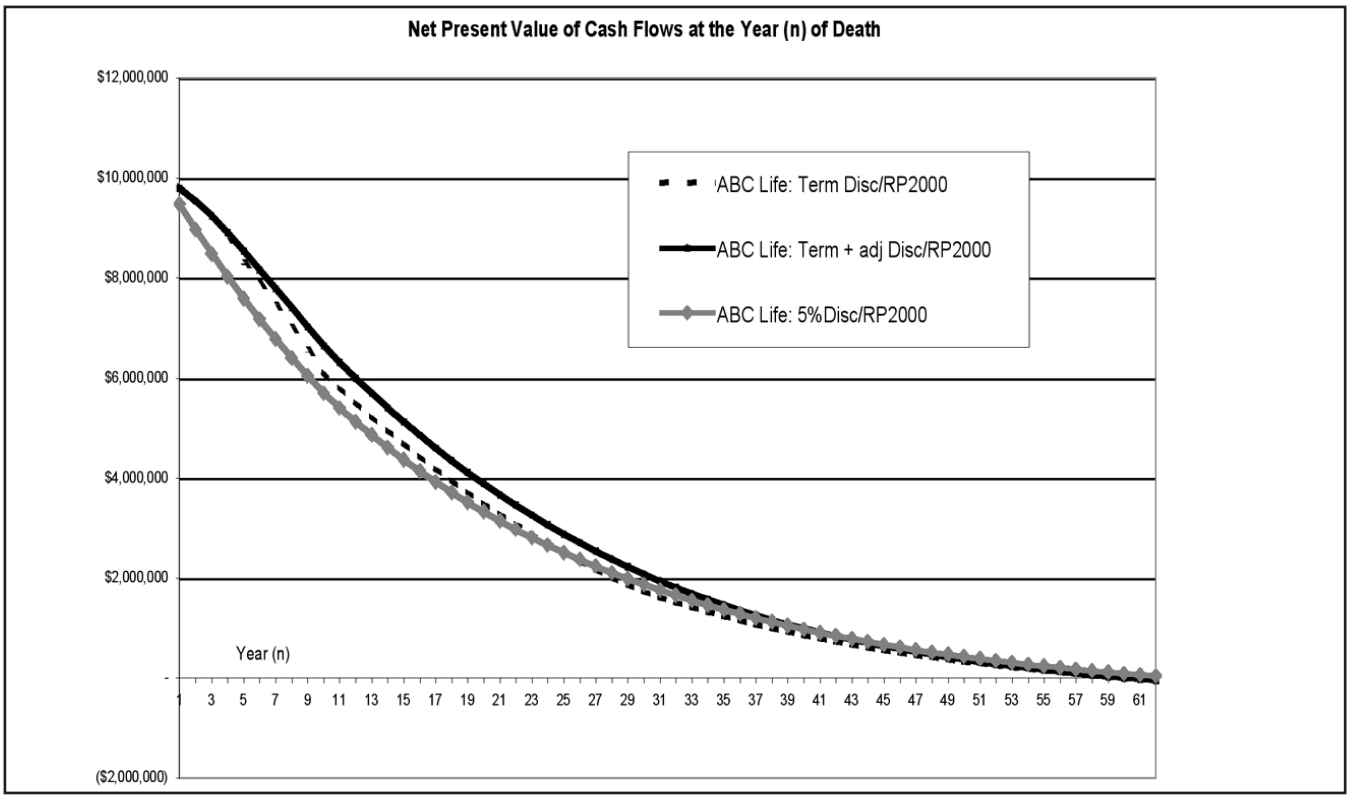


Figure Three



Liquidity Risk

Thus far, the evaluation assumes that the insurance policy will be maintained and funded according to the suggested premium schedule. However, the risk of acquiring an insurance contract must also consider the possibility that the premium payer will be unable or unwilling to continue payments. We account for this risk by assuming that the contract will be returned to the insurance company in a future year for its full net surrender value. Changes in economic circumstances, tax law changes, or other unexpected developments often prompt policyholders to discontinue their insurance programs. To the extent that policy surrender results in a refund that (measured in today's dollars) is less than the value of aggregate premiums paid (measured in today's dollars), then the trust assumes "liquidity risk." Liquidity risk for insurance contracts has traditionally been very high. A lapse ratio of only 3% (far below the average lapse ratio for all lines of life insurance programs) means that only approximately 56% of contracts will be in force after 20 years. Figure Four below depicts the liquidity risk of the ABC insurance program given the ten-year projected premium schedule. Under the term structure of interest rate discounting scenario, the trust bears a liquidity risk throughout the planning horizon. Under the fixed interest rate scenario and adjusted term structure, the trust incurs a substantial liquidity risk during the initial policy years.

To the extent that any insurance product has a significant liquidity risk, the benefit calculations must be risk-adjusted to reflect the true economics of the transaction.

Actuarial Mispricing Risk

The advisor conducts an independent test of the reasonableness of an illustration's projected values given (1) interest rate conditions prevalent on the date at which the test is made; and (2) lapse, mortality and expense assumptions approximating industry norms and appropriate for the type of policy under examination. *The test is not a prediction about or projection of how any company's contract will actually perform in the future.* Rather, it provides a benchmark against which the company-generated illustration can be compared. The goal of the test is to help determine the relative credibility of an illustration as opposed to predicting the actual performance of a specific contract.

Figure Four

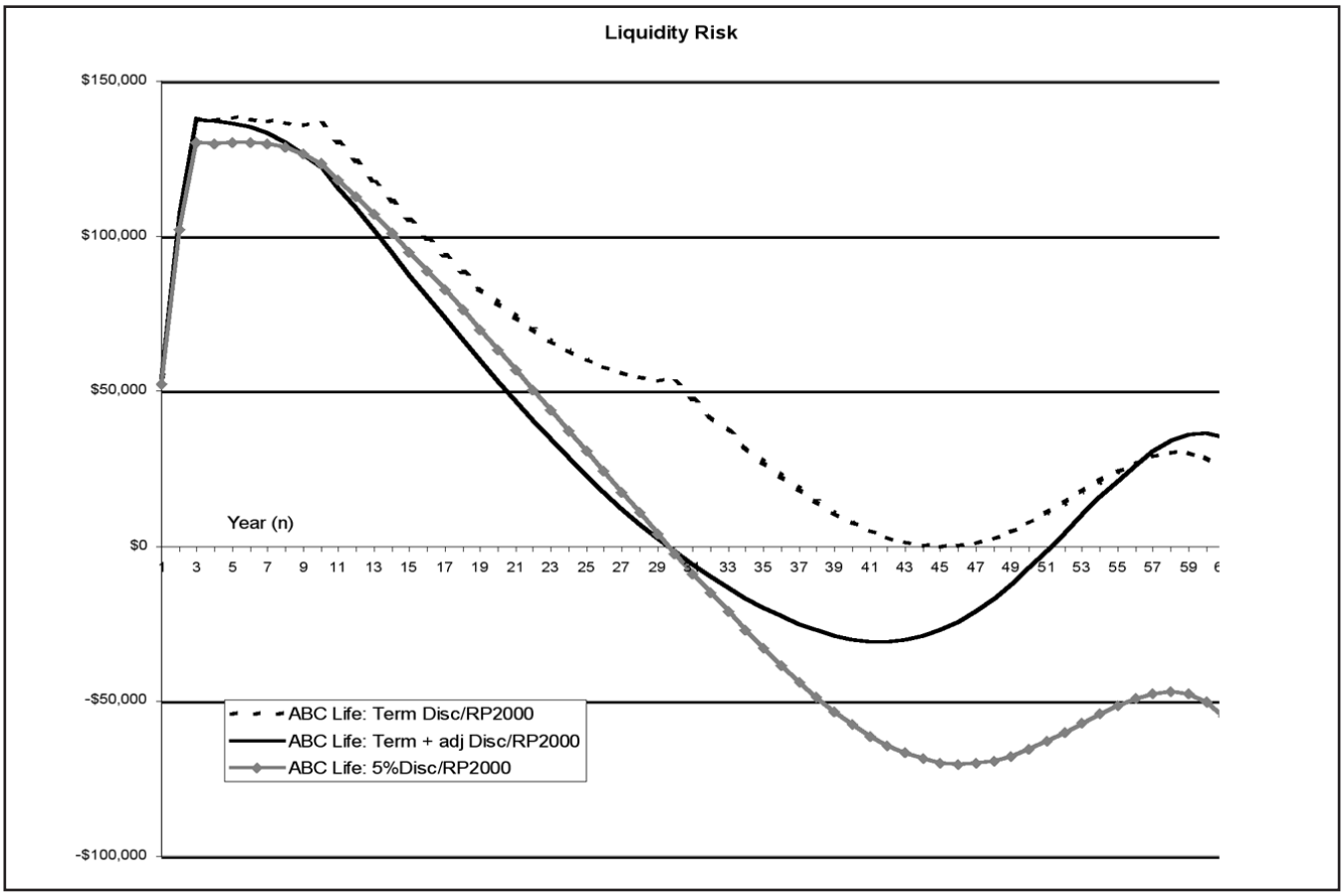
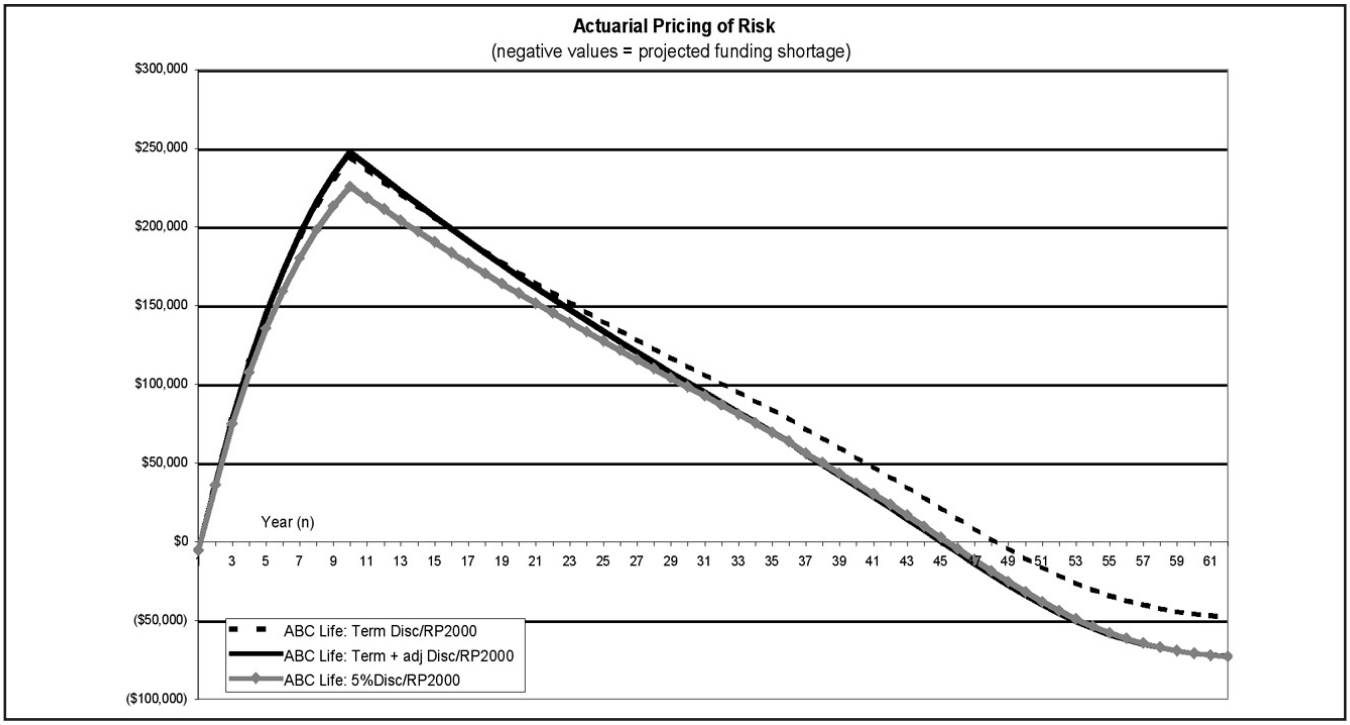


Figure Five



Insurance illustrations provide a static picture of policy performance when, in fact, actual future values depend on dynamic, *i.e.* changing, future conditions. Although values projected beyond twenty years are problematic at best, long-term projected comparisons against a benchmark model are useful in that they provide a measure of an insurance contract's vulnerability to actuarial mispricing risk. We measure actuarial mispricing risk by subtracting the net present value of the expected contract benefits (surrender benefits for lapses and death benefits for claims) from the net present value of expected premium cash flows (adjusted for deaths and surrenders as well as for assumed contract expenses). Figure Five above depicts the magnitude of possible shortages or surpluses under the three discounting rate scenarios.

The above graph indicates a possibility that the insurance carrier projects contract benefits too aggressively. Given a large block of comparable insurance policies, the carrier may have insufficient funds to pay benefits to insureds throughout the planning horizon. In this case, the model suggests that additional funds (after loads and expenses) are needed to fund the projected benefits.

Figure Six illustrates the present value magnitude of the projected premium shortfall:

Figure Six

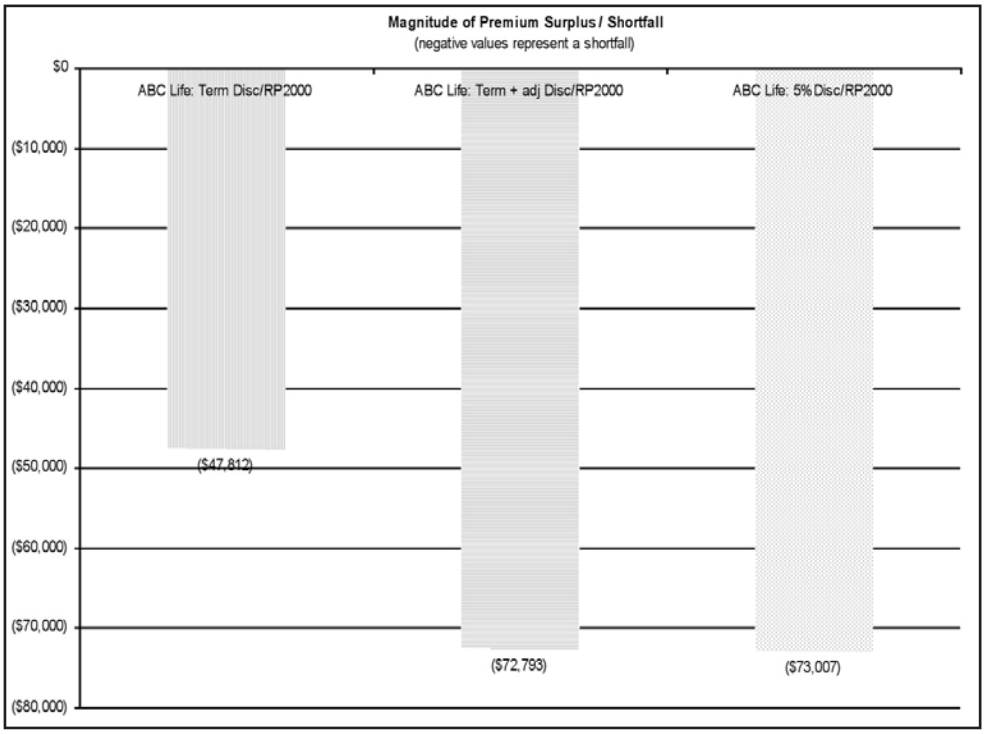
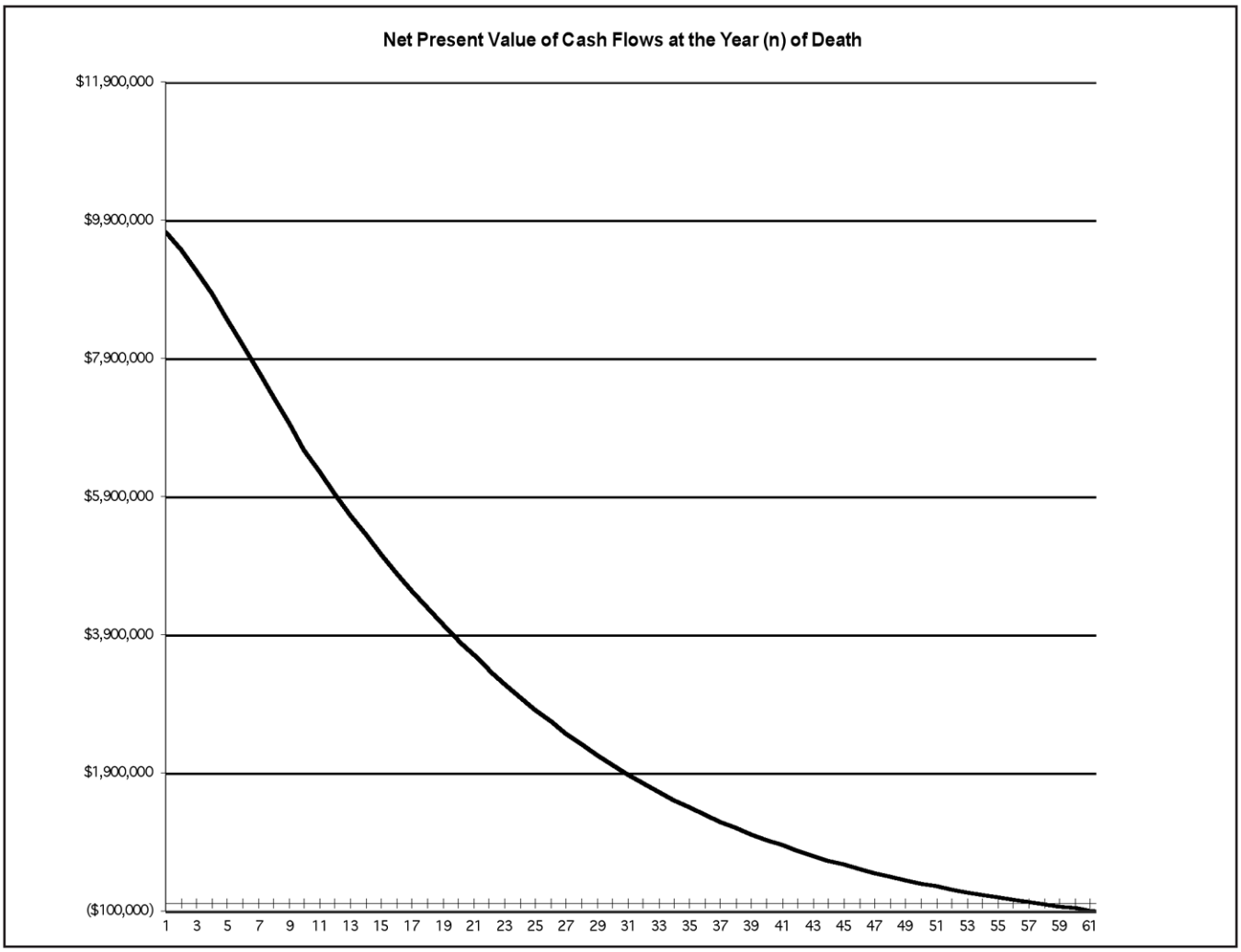


Figure Seven



Revised Valuation Measures

The report provides additional perspective on the ABC policy illustration by incorporating the calculated premium shortfall into the benchmark model.

Figure Seven above reflects the model's output with respect to the net present value under the term structure of interest rate discounting method.

In Figure Seven, the insurance contract results in negative net present values beginning in contract year 58. Given the force of mortality under SOA 2000, and the term structure of interest rates adjusted for a 50 basis point credit risk spread, the likelihood of negative net present value rises to approximately 19.8% under the revised premium schedule.

The comparative analysis indicates that the risk/reward tradeoff operates across several important dimensions:

1. The insurance contract, although designed to hedge against the economic consequences of a joint death, is not a risk-free financial instrument. The policy illustrations show that a failure to achieve projected values may result in an unplanned lapse with a loss of all premiums and benefits.
2. The policy has a significantly greater than zero chance of subtracting value from the estate. In contrast, assuming a stationary return-generating process and a lognormal distribution of returns, the chance of a diversified equity-based investment (*e.g.,* the S&P 500 stock index) subtracting value over a comparable planning horizon is vanishingly small.

Thus a prudent risk/reward decision requires a careful evaluation of the need for and benefits of life insurance as a vehicle to hedge against economic perils arising upon the death of the second spouse.

Premium Offset Proposals and Policy Design

The insurance policy illustration presents an abbreviated schedule of out-of-pocket premiums based on a planning technique known as "premium offset" or "short-pay option." Generally speaking, this technique relies on non-guaranteed future policy values to create future cash flows sufficient to fund the ongoing premium obligations. Beginning at a projected future date, the non-guaranteed elements of the policy will, if all assumptions prove correct, carry the policy despite the absence of premium payments made directly by the policyowner. The key phrase is "if all assumptions prove correct." The comparative benchmark model suggests that the premium-offset strategies may not perform as illustrated.

The advisor suggests that the trustee investigate certain policy design modifications. Although second to die insurance policies illustrate large death benefits for relatively modest premiums, the receipt of the death benefit rests on the contingent probability of two deaths. For example, assuming the statistical independence of each death and recognizing the fact that the contract offers no first-year surrender value, the ABC insurance contract has a statistically expected benefit value of only $6.00 in year one. Although the insurance carrier posts more than $6.00 for claims' reserves and must purchase reinsurance protection to protect against unexpected claims, nevertheless, the value of the benefit, adjusted for the probability of claiming it, is very small. Mortality costs increase yearly; and, as time unfolds, the costs of the insurance protection increase dramatically. The mortality costs are a function of the spread between the cash accumulation ($0.00 in the first year) and the $10 million death benefit. The spread is so great in the early years of the policy that the $10 million in benefits cannot grow above this point prior to male age 99. However, if this spread can be minimized, the policy's death benefit will grow according to a wealth accumulation function more in line with a classic compound growth curve (low death benefits in the early years when the value of such a benefit is slight, higher death benefits in the later years when the probability of a claim is greater). Additionally, because the statistically expected value of a claim is very low in the initial years, the insurance company can pay higher commissions to agents that sell insurance policies with great amounts of initial death benefits. By retaining the commission expenses rather than paying them, the insured has an expectation of receiving greater contract benefits over the long term. Commissions are not merely an expense that occurs at the beginning of the insurance program—every commission dollar paid means both the loss of money plus the loss of compound earnings thereon throughout the life of the policy.

These facts suggest an alternative policy design. Consider a policy that provides a low amount of *initial* death benefit for the amount of premium dollars that you are willing to commit to it. This strategy will mitigate the large spread between the cash accumulation value and the death benefit. There are several methods for accomplishing such an objective including the use of additional premium riders, maximum funded universal life policies, and so forth.

The basic design consideration is to maximize the funding into the contract while maintaining its status as a tax-favored life insurance policy. (Over funding a contract results in its disqualification as insurance.) With maximum funding the death benefit grows without future encumbrances on it. The risk of a policy lapse because of interest crediting underperformance is lessened and, most importantly, the death benefit may grow to a point where it becomes large at the very time when the probability of a claim is high. Indeed, such a structure may mean that the beneficiaries will receive more death benefit from max-funding a smaller initial amount of coverage than from buying a huge policy and hoping that the non-guaranteed interest credits will sustain it in future years.

Diversification

Diversification is fundamental to the prudent management of assets. Over the past decade, there has been a high level of mergers, acquisitions and insolvencies within the life insurance industry. "Blue-chip" companies with years of consistent top rankings for both performance and financial strength have either been thrown into receivership or have ceased to exist because of changes in corporate structure. Therefore, the advisor recommends the development and implementation of an appropriate diversification strategy to protect the insurance benefits from unexpected financial shocks. That is to say, the agent should be able to articulate a clear and compelling rationale for placing the portfolio with a single carrier. Absent such a rationale, additional diversification and a more balanced apportionment of risk should be considered.