
U. S. Executive Benefit Plans
and the
Uses of Insurance Contracts to Finance their Liabilities

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Background

This paper describes several of the benefit programs that many employers in the United States provide for their executives. It discusses the role of insurance contracts as vehicles for financing the liabilities of those programs and illustrates the comparative economic advantages that programs funded through insurance contracts can deliver to a company and its executive workforce. The author hopes that actuaries from other countries will be encouraged to translate and adapt the concepts and analytical methods presented in this paper to fit their local tax, legal, economic and investment environments.

The importance of executive benefits plans in the United States and the methods by which the related corporate obligations are delivered have changed dramatically in the past twenty years. Legislative and regulatory limits on the benefits provided through plans qualified with the Internal Revenue Service (IRS) have increased both the need to establish supplemental benefit arrangements for the highly compensated and the number of executives who depend on those corporate programs for their economic security. Further, radical changes in the ownership structure and management practices of American businesses have raised high anxiety about the security of executive benefit promises.

In this new atmosphere, funding these obligations to their executives has become a significant priority of U. S. corporations. The unique attributes of insurance contracts and the competitive response of the insurance industry to these new market opportunities have encouraged many employers to fund their executive benefit obligations, either directly or informally, through corporate-owned life insurance (COLI) contracts.

This growing recognition of the economic attractiveness of insurance contracts as funding vehicles for executive benefit programs has created an opportunity for

consulting actuaries. In significant contrast to their activities as Enrolled Actuaries under the Employee Retirement Income Security Act (ERISA), where compliance with regulatory requirements and new financial accounting standards are the dominant influences on actuaries advising pension plans, actuaries advising clients on executive benefit plan design and financing have a new opportunity to apply professional imagination and a degree of creativity in developing their recommendations.

This new awareness of the utility of insurance contracts as efficient instruments of corporate finance stands out in bold contrast to opinions prevailing among British and American when IACA was formed over 30 years ago. In those days the high cost and limited investment potential of pension plans funded through insurance and annuity contracts encouraged a massive shift toward funding through pension trusts. Today, few IRS-approved pension plans are funded through group annuity contracts and even fewer of those plans invest in life insurance or endowment contracts. To meet this new demand for expert assistance, employee benefit consulting firms are expanding their professional staffs to include individuals with knowledge of the COLI market and the products and services being offered by insurance companies.¹

The Current Status of Insurance Contracts

Insurance companies enjoy several distinct advantages under current U. S. tax laws. Insurance policy cash values (the so-called “inside buildup”) are not currently taxed, and are never taxed if the insurance policy remains in force until the death benefit is paid. Insurance premiums for executive benefit plans are not currently deductible, but the death benefits eventually payable are not taxed either. Cash withdrawn from in force insurance policies that avoid IRS restrictions on excessive investment is not currently taxed. Only on cancellation of the policy is any cash value in excess of the accumulated premiums taxable. (These advantages are mitigated if the sponsoring organization is taxed under the alternative minimum tax (AMT) rules of the IRS.)

The competitiveness of insurance contracts has been profoundly changed in recent decades. The advent of universal life insurance policies and the introduction of variable life insurance contracts with flexible premiums and a wide range of

¹ Some insurance companies are offering contracts in the COLI market that pay no commissions; the COLI buyer either retains for a fee an independent firm to provide for consulting and administrative services or pays fees to the insurance company for the services it requires. Other insurers active in the COLI market have retained the traditional method of compensating brokers and consultants through commissions and compete with the no-commission products by offering sharply reduced commission arrangements and products tailored to the specific requirements of COLI buyers. If they are to serve clients objectively and well, actuaries advising on the selection of insurance companies should be prepared to recommend insurers that pay commissions and to accept those negotiated and fully disclosed commissions in lieu of fees. Under these circumstances, some may find themselves in violation of IACA’s membership standards. It may be timely to remove the prohibition against being compensated for professional work principally through insurance commissions.

investment options have eliminated or significantly reduced the historic objections of corporations and their advisors to using insurance contracts to finance their executive benefits. In addition, a growing number of insurance companies with excellent credit ratings have recognized the importance of corporate owned life insurance and have repositioned their products and underwriting practices to appeal to that market segment. They are offering guaranteed issue of large amounts of insurance, access to independent investment advisors with enviable performance records, contracts with much reduced or no commissions, current mortality charges that reflect the lower mortality experience of executive populations, administration and expense charges appropriate for multilife business with large premiums and low lapse rates, sophisticated insurance illustration systems, and customer hotlines and other easily accessible servicing capabilities.

The competitive advantages of insurance products have not gone unnoticed, particularly when overly aggressive promotion - and abusive practices by some insurance companies or insurance marketing organizations - attracted the attention of legislators and regulators. As a result several limitations on the taxation or uses of life insurance and annuities have been instituted or are being currently considered, including:

Section 264 of the Internal Revenue Code (1963) denies a deduction for policy loan interest unless four of the first seven annual premiums are paid in full.

The 1986 Tax Reform Act reduced the amount of tax deductible policy loan interest on newly issued policies to the interest on a maximum loan of \$50,000.

The Technical and Miscellaneous Revenue Act of 1988 (TAMRA '88) limits the use of the investment features of life insurance by defining certain policies as "modified endowments". When the cash value of a modified endowment policy exceeds the owner's investment in the contract, any part of the withdrawal that represents investment gain is currently taxable.

Since 1986 the "inside buildup" on annuity contracts owned by a corporation is currently taxable.

Draft legislation now being considered by Congress would phase out the loan interest deduction on policies issued since 1986 and limit the deductible interest rate on loans from pre-1986 policies.

None of these restrictions has a significant effect on the applications described in this paper. Insurance policies adhering to the conservative purposes that originally justified their favorable tax status are unlikely to be threatened by future legislation.

They will continue to be sound vehicles for financing executive benefit plans and making them secure against a failure to deliver promised benefits.

Financing Executive Benefit Plans with Insurance Contracts

This paper will describe and illustrate four types of executive benefit plan and the manner in which an insurance contract can better serve the program's objectives at less cost to the employer and with greater economic value and security for the executives. They are: supplemental executive retirement plans (SERPs); bonus deferral plans; executive life insurance plans; and supplemental disability income plans.

Supplemental Executive Retirement Plans (SERPs)

In 1974 ERISA placed ceilings on the benefits provided by IRS-qualified pension and profit sharing plans. Initially these limits affected only a handful of top executives. Employers quickly found a simple solution: adopt a supplemental plan, not subject to ERISA rules, that adjusted for the effect of the ERISA limits. These so-called "ERISA excess plans" were unfunded and the employer received a tax deduction only as benefits were paid.

About a decade ago the accounting rules governing these plans were clarified: they are subject to the requirements of FAS No. 87. This means that the liability for future benefits must appear in the employer's financial statements and the accrued cost of expected benefits is a charge against current income.

Over the years, the ERISA limits have become more onerous and more executives are having their IRS-qualified plan benefits cut. Since 1994 IRS-qualified retirement plans can recognize only \$150,000 of annual compensation, and many more executives have become dependent on their employer's SERP for an adequate retirement benefit. (One major company observed that the number of executives covered by its SERP increased from 35 to 175. The SERP, which initially covered only the top tier of executives, will be an important source of retirement benefits for the third tier on the organization chart.)

Now that their SERP liabilities have become larger and more visible, employers are rethinking earlier decisions to not fund in advance. Prudence suggests that a large and growing liability should be funded, so that pressure on the future stream of corporate earnings is reduced. Furthermore, executives are becoming more conscious that the SERP benefits are a significant part of their total retirement income. In these days of downsizings, mergers and other restructurings and changes of management control, an unsecured corporate promise is not very appealing.

The liability of corporate America for SERP benefits is unknown. The Employee Benefits Research Institute and other organizations that do research into employee benefit plans have not surveyed employers about their corporate liability for SERP benefits and no government agency has collected the necessary data. We have made some admittedly crude estimates of the aggregate SERP liability and believe that it is now about \$200 to \$300 billion. By comparison, the assets of U. S. corporate pension plans were around \$2.5 trillion at the end of 1993. Another significant fact is that SERP liabilities are highly leveraged, since they are the tip of the corporation's total pension liability, and will become a larger percentage of a growing total U. S. pension plan liability in the future.

Funding a liability that could represent 10% to 15% of a corporation's total pension liability is meaningful not only to shareholders and executives, but to rating agencies and other organizations evaluating the creditworthiness and investment merits of the company.

Funding through an accumulation of retained earnings, with line item identification on the balance sheet, does, however, have some disadvantages: there is no tax deduction until benefits are actually paid and the investment earnings on the assets deemed for the SERP are currently taxable, unless invested in lower yielding tax exempt securities. Furthermore, the executive has no security that the SERP will be continued or that there will be assets backing up the accrued SERP liability when he or she claims a benefit.

In today's climate most of these negatives can be removed - or substantially mitigated - and a decision to fund the SERP will make financial common sense for the company, its executives and its shareholders. This is particularly true in the utility industry because the regulatory agencies in many states are allowing the costs of funding SERPs to be added to the rate base.

The executive security issue can be resolved by accumulating assets within a "rabbi trust". (Assets in a rabbi trust remain the property of the employer, but may only be used for the purposes defined in the related trust instrument. This mechanism protects the executive against the risk of an unfriendly change of management or corporate control, but not in the event of bankruptcy. This concern can be mitigated or removed by writing into the trust document financial tests that will signal a rising risk of bankruptcy and require immediate distribution of the trust's assets to the eligible executives.)²

An analysis of the merits of funding a SERP and choosing the mechanisms and financial instruments through which such a decision can be most efficiently implemented would take into account these realities:

² Recent statements by the staff of the Internal Revenue Service indicate that the inclusion of payout triggers in a rabbi trust may, by putting the trust's assets de facto beyond the reach of creditors, invoke the doctrine of constructive receipt and make the executives currently liable for tax on contributions to the trust.

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- [] The investment policy of the rabbi trust should have a realistic expectation of matching the returns produced by assets in the employer's IRS-qualified retirement plans, which typically allocate 60% to 70% of the portfolio to common stocks.
- [] Asset volatility is an issue for a rabbi trust because fluctuations in the value of trust assets could have an undesirable impact on the employer's net income. Assets with returns comparable to common stocks, but with lower volatility - such as high yield bonds - would dampen the effects of market volatility.
- [] Tax considerations are also important, since the rabbi trust's assets are subject to the same taxes imposed on other financial assets shown on the employer's balance sheet. The impact of income taxes can be reduced by such strategies as investing in preferred stock (with the 70% intercorporate dividend exclusion) or in stock index funds (with limited turnover there is a partial deferral of gains taxes).
- [] An even more tax efficient investment vehicle is available through variable life insurance policies owned by the company and held as assets of the rabbi trust.
- [] The wide range of investment funds available to variable life policyholders enables the corporate owner to replicate the qualified plan's investment strategy. These funds are typically managed by well known and respected investment managers.
- [] By holding the variable policies to maturity the corporation recovers its cost for the funding program through the tax-free death benefits.
- [] Several high quality insurance companies have concentrated on the corporate owned life insurance (COLI) market and are offering policies with administrative, mortality and profit charges that greatly improve their economic attractiveness.
- [] The COLI policies can be designed to minimize the commission element of the cost structure.
- [] Larger companies can negotiate private placement arrangements with certain life insurers under which the SERP sponsor can choose the investment manager(s) for the COLI assets, control the investment strategy and take an active role in negotiating investment fees.
- [] Tracking the aggregate SERP liability, choosing the optimal investment strategy, making annual decisions about the right amount to add to the COLI investment pool, and evaluating the success of the chosen investment manager(s) are essential elements in the management of a funded SERP program. Two technical tools created and regularly updated by the fixed income research department of Salomon Brothers - the Pension Discount Curve and the Pension Liability Index - are resources that actuaries and corporate financial officers can use to carry out these functions.
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Executive Life Insurance Plans

Life insurance benefits for the employees of most American companies have traditionally been provided through group life insurance policies. Larger employers have been "experience rated", meaning that the company's cost is based entirely on death claims among its own employees. (The group life contract may have a "stop loss" feature that assesses a reinsurance charge to limit the loss on individual claims or to cap the aggregate loss in a single policy year.)

Employees may or may not contribute toward the cost of their coverage. Insurance amounts in excess of \$50,000 give rise to an imputed income tax liability reflecting the current value of the insurance coverage. The imputed income is measured by an age-related table published by the IRS, then reduced by the employee's current contribution to the insurance plan. If insurance continues after retirement, when contributions by the executive have ceased, a retired executive's tax cost can become a considerable expense.

Taking executives out of the group plan - either completely or to the extent that their current insurance benefit exceeds \$50,000 - and providing coverage through individual life insurance policies owned by the employer can save the executives considerable tax dollars because the imputed income tax liability for individual policy coverage can be based on the insurance company's term insurance rates. Those rates are a fraction of the rates in the IRS group life table. If the insurance policy is given to the executive at retirement, there is no further imputed income.

Apart from the fact that executive costs are lower and the employer's mortality risk is fully transferred to the insurance company, the policies can be designed to provide cost recovery for the employer, either through a death benefit payable to the employer or through a withdrawal from the policy when the executive retires. The economic soundness of this transaction is heavily influenced by a tax arbitrage: the employer invests after-tax corporate earnings in the insurance policy; if retained by the employer and invested in similar financial assets, the resulting investment gains would be currently taxable; when invested under the umbrella of the insurance policy, the insurer credits interest earnings to the policy's cash value which are not currently taxable. The economic soundness of this transaction is prominently influenced by the insurance company's investment performance and the employer's tax rate.

A comparative analysis of a typical executive life insurance program, often called a "group carveout" plan, is presented in Exhibit 1. The first page identifies the demographic and economic assumptions underlying the projections and the design of the insurance policy. Those assumptions include the executive's sex, smoker status, and current age, salary and insurance benefit. The assumptions about future events

affecting the executive's benefits, contributions, and taxes include his salary growth rate, retirement age, age at death, marginal tax rate and gross return on invested assets. The assumptions affecting the employer's cash flow and economic results are: the employer's tax rate and investment hurdle rate, along with a definition of the pattern of premiums.³

The second and third pages of Exhibit 1 show a projection of future pay and benefit amounts and the executive's imputed income, tax and contributions under the group life plan. The eighth and ninth columns show the employer's actuarial expectation for death claims and contributions by the executive. (The underlying mortality table is the 1983 Group Annuity Mortality Table with a 20 year projection of mortality improvements.) For each column, the present value at the employer's net discount rate are shown. The difference, \$60,978, is the employer's expected cost for the group life plan, without consideration of any administration costs.

The final page shows the economics of the new universal life program. (Note that the employer has improved the executive's situation by reducing his taxes on imputed income and reducing his contributions toward the premium cost.) The next two columns on that page show the premium and the cost recovery benefit payable to the employer if the executive dies before retiring. The last three columns show the employer's actuarial expectation for premiums, cost recovery and net cash flow cost, all based upon the 1983 Group Annuity Mortality Table with a 20 year projection of mortality improvements. For each column, the present value at the employer's net discount rate is shown. The employer's net present value cost for the program is \$38,931, \$22,047 less than the present value cost of the group life plan.

The superior economic performance of the universal life program is primarily due to the spread between the employer's net discount rate (6.0%) and the insurer's crediting rate under the universal life policy (7.8%).

Supplemental Long Term Disability Benefits

Many American companies provides long term disability benefits through a group insurance policy. The policy may be experience rated, so that larger companies are effectively self insuring their disability benefit programs.

³ The assumptions displayed in Exhibit 1 and the other exhibits in this paper represent only one scenario of possible future outcomes. Other combinations of assumptions are easily tested in the author's spreadsheet models by inserting new values for many of the variables. (These variable parameters are enclosed by double line boxes.) Parameterized spreadsheet models are useful not only at the design stage of a consulting project or in dialogues with a client about the financial implications of funding an executive benefit plan. They are powerful tools for explaining a program's features to participating executives and assisting them in deciding how to exercise their rights under the program.

Benefits are limited as a percentage of pay and in dollar amount, for example, 60% of current salary, not to exceed \$15,000 per month. Benefits commence after six months of disability and continue while the disability persists until age 65. The definition of disability during the first two years is "inability to perform the duties of his usual occupation". After two years the definition becomes more restrictive: "inability to perform the duties of any occupation for which he is qualified by training and experience". This is particularly significant for the executive, who may be well qualified to perform many jobs commanding a much lower salary.

Individual disability income contracts offer higher benefit limits and retain the "own occupation" definition of disability after the first two years. Policies issued currently are typically "guaranteed renewable", meaning that coverage cannot be canceled, but premiums can be increased.

They are also portable, i.e., transferable to the executive upon termination of employment. In a commercial world where layoffs and staff reductions can reach into the corner offices, the fear of being forced out of a senior position if illness or other physical disability obliges one to take a leave of absence is no illusion. From management's perspective, the portability feature also has advantages: knowing that the disability contract is a meaningful safety net, more objective decisions about a marginal executive's future will be encouraged.

If the executive pays the premium for the individual disability income contract and owns the policy, any income benefits are received tax free. The employer can pay a taxable bonus equal to the premium, thus sharing the cost of the benefit. This arrangement is generally the most tax efficient.

Coordinating the executive's individual policy benefits with those provided under the employer's experienced rated disability plan for the general work force is a desirable arrangement. This is most easily accomplished by having a two year waiting period in the individual policy.

Executive Bonus Deferrals

Many public and private companies offer executives the opportunity to delay the actual and constructive receipt of annual incentive bonuses, thereby deferring income taxes and encouraging the executive to build a personal retirement fund. According to a recent survey of the practices of 45 public companies (Executive Compensation Reports, July 15, 1995 issue), the deferred bonus accounts are typically credited with a rate of return fixed by the employer or tied to a financial market index (e.g., the prime rate, T-bills, 1 to 10 year Treasuries, a corporate bond index). In many deferral plans the index rate is increased (sometimes by 3 or 4 %) to offer a more

attractive crediting rate for the deferral accounts. Typically, the accounts remain a general liability of the employer and are not backed up by dedicated assets.

Participation in a bonus deferral program is usually a sound decision, even if the executive thinks that he or she could get a higher after-tax return from a personal investment program than the employer will credit to the deferral account. (This is due to the fact that the executive who does not defer the bonus must first pay income taxes on it before adding capital to a personal investment program.)

Exhibit 2 illustrates the results for an executive age 47 who has the choice between an unfunded deferral account credited with the yield on 10 year Treasuries + 1.5% and investing on his own account in a diversified portfolio of investment grade bonds and common stocks. The projections assume that the executive's current salary is \$125,000 and will increase at 6% per year, the annual bonus is 25% of current salary, 30% of each bonus is deferred, and the executive retires at age 64. The tax rate on salaries and investment earnings is 45%, illustrative of the combined state and federal marginal rate under current law. The executive who takes the bonus and invests on his own after paying the related taxes is assumed to have a portfolio with 25% in bonds returning 7.50% and 75% in stocks returning 10.50%. After investment expenses of .90%, his pre-tax investment return is 8.85%. Net of taxes, the portfolio's rate of return is 5.17%. The assumptions related to the corporation, again reflecting current law and market conditions, are: tax rate, 40%; cost of borrowed funds, 9%; discount rate, 8%.

The economic significance of the executive's decision is captured by these summary values:

<u>Executive Option</u>	<u>A-T Value of Cash Retained by Employer</u>	<u>PV Cost to Employer</u>	<u>Exec's A-T Acct. at Retirement</u>
Accept Deferral Plan (7.50% crediting rate)	\$40,357	\$73,639	\$249,762
Take the cash now (Invest at ROR of 8.85%)	31,166	76,564	207,160

The conclusions to be drawn from this example are:

□ Bonus deferral makes sense for the executive. His capital is 20% greater at retirement, and the Treasury bond index will have much less volatility than a portfolio with a good percentage of common stocks. (This point takes on special significance if the executive's retirement coincides with a stock market bottom.)

[] The present value cost to the employer - using a discount rate (8%) appropriate to the pension accounting principles of FAS 87 - is slightly less if the executive defers the bonus. (This is due to the negative spread between the discount rate and the deferral plan's average crediting rate.)^{4 5}

[] Deferring the bonus improves that employer's working capital position. The reduction in borrowing costs is about \$8,000 - a 20% improvement over the immediate payout scenario.

[] The net impact on the employer is a \$33,282 (\$73,639 - \$40,357) cost for the deferral plan vs. a \$45,398 (\$76,564 - \$31,166) cost if the executive takes the full bonus each year.

Funding the deferral program by investing in variable life insurance policies owned by the employer and held within a "rabbi trust" offers other dimensions of opportunity.

Assets in a rabbi trust remain the property of the employer, but may only be used for the purposes defined in the related trust instrument. This mechanism protects the executives against the risk of an unfriendly change of management or corporate control, but not in the event of bankruptcy. (As noted earlier, the trust document may define financial tests that will signal a rising risk of bankruptcy and require immediate distribution of trust assets to the eligible executives.)

⁴ The discount rate has a critical influence on the comparative cost to the corporation of funded and unfunded bonus deferral plans. If one views the bonus deferral plan as a loan from the deferring executive with a balloon payment of the principal and interest upon the executive's retirement or other termination of employment, the discount rate should be related to the corporation's after-tax cost of borrowed funds. (The theoretical support for this conclusion is contained in *Principles of Corporate Finance* by Richard A. Brealey and Stewart C. Myers, Third Edition, McGraw-Hill Book Company, page 173) This would lead one to a discount rate of 5.4% under the assumptions reflected in this paper, $9\% \times (1-.40)$, and would increase the employer's after-tax cost of the deferral plan to \$58,000.

⁵ Some financial executives analyze the comparative cost of funded executive benefit programs by discounting cash flows at a rate derived from their return on equity investments or a blended cost of capital. This approach implies that the discount rate appropriate for a risky investment, e.g., an investment in a new product or expansion into new markets, with uncertain future payoff should be equal to the discount rate on cash flows to discharge a definite liability to a departing executive. This conceptual error leads to investment hurdle rates that distort the true cost of funded arrangements, especially those using corporate owned life insurance as the funding vehicle. The 8% discount rate adopted for these illustrations is characteristic of the rates used to account for the cost of corporate retirement plans, i.e., the yield on long term investment grade fixed income securities.

If the after-tax investment return on the assets in the rabbi trust is credited to the deferral accounts, the employer's liability is offset by a matching asset. This sympathetic relationship insulates the shareholders' equity account from any volatility in the value of the trust's assets and is particularly significant if the trust is invested in common stocks.

This paper examines the economics of funding with corporate owned life insurance (COLI) policies in two ways: with direction of the investments under the policies influenced by the preferences of the executives, each executive's deferral account being credited with the rate of return produced by his or her investment choices; and with the employer directing the investment policy on all of the policies and crediting the deferral accounts with a rate of return based on the employer's expectations for the return under the COLI policies. Under the first approach the executive gains much or little based on the success of the investment preferences communicated to the employer. The second approach enables the employer to participate in the success of the investment program by crediting part of the investment return to the executives and retaining the residue as an offset to the cost of the deferral program.

The economic result of the two approaches was tested by assuming, in the first case, that the executive prefers a diversified portfolio invested 25% in bonds and 75% in common stocks; in the second case, the employer was assumed to be invested in high yield bonds producing a return of 11.50%, with the deferral accounts being credited with 9.50%. The results are included in Exhibits 3.1 and 3.2. The first page of each Exhibit shows the underlying demographic, economic and actuarial assumptions. The second page of each Exhibit sets out the pattern of executive bonuses and deferrals and displays the premiums, death benefits and required cash values under the variable life insurance policy. The key columns in the Exhibit are the employer's cumulative cash flow and the executive's deferral account. The present value cost of the program and the after-tax results for the executive upon retirement are shown. Those key numbers from both Exhibits are summarized below.

<u>COLI Program Design</u>	<u>A-T Value of Cash Retained by Employer</u>	<u>PV Cost to Employer</u>	<u>Exec's A-T Acct. at Retirement</u>
Exec. investment control (8.54% net ROR)	\$19,216	\$63,506	\$270,936
Employer inv. control (9.50% fixed crediting rate)	35,427	33,191	292,434

The variation with executive investment choice produces an attractive result: the \$271,000 after-tax capital account is about 10% higher than results of the unfunded plan described at the beginning of this paper. (It must not be forgotten that the

executive is carrying the investment risk and may do better or worse than the scenario being postulated here.) The employer's net cost is about \$10,000 higher (\$43,000 vs. \$33,000 for the representative unfunded plan). If we compare the cost of the deferral plan with COLI funding and the "no deferral" option, the employer's net cost is lower (\$43,000 vs. \$46,000).

By retaining investment control (and accepting the resulting investment risk) the employer may do even better. (A high yield bond return of 11.50% has been assumed. This level of return is comparable to the return on diversified equity portfolios. In the U. S., high yield bonds have experienced about one half of the volatility of stock portfolios, thus reducing considerably the danger that market fluctuations in the value of the rabbi trust assets would distort reported earnings.) As shown above, the executive's account grows to \$292,000 (a 17% improvement over the unfunded plan) and the net cost to the employer is actually negative, due to the COLI cost recovery and retention by the employer of part of the favorable investment results.

Finding the right insurer and designing a policy that optimizes the economic benefits for the employer and the executives is essential to a successful outcome, but is not the whole answer. An efficient administrative system for tracking the deferral accounts, particularly if the executives have a voice in choosing - and changing - the investment direction is absolutely critical.

In summary, a well designed bonus deferral plan will have advantages for both participating executives and the employer; an unfunded bonus deferral plan improves the employer's cash flow and reduces borrowing costs, but does not provide participating executives the security of a funded plan; funded deferral plans that are subject to current income taxes and those invested in low return - and lower risk - assets are more expensive for the employer; corporate owned life insurance (COLI) offers an alternative investment vehicle that corrects both of these flaws, giving higher net-net gains for the executives and materially reducing the cost of the program to the employer.

Financing Two Executive Benefits through a Single Contract

Combining an executive group carveout program with funding for a SERP or with a bonus deferral plan has economic advantages for the employer. The premium is larger and fixed charges by the insurer are spread over a larger base. The death benefit paid by the insurance policy is not solely a device for cost recovery by the employer, but provides the liquidity to pay the executive's death benefit. Also, the executive can be allowed to take ownership of the policy upon retirement, thus giving the executive financial flexibility to continue in retirement the full amount of insurance provided while he or she was working, to retain the tax sheltered

investment advantages of the insurance policy, and to have the freedom to draw down assets only as needed to maintain his or her desired level of retirement income.

Summary

This paper describes the growing importance of executive benefit programs, some made necessary by legislated limitations on the benefits provided by programs covering the general workforce and others reflective of the special circumstances of the highly compensated or the structure of typical executive compensation programs.

It highlights the desirability of funding the obligations of those programs and identifies the tax advantages and other attributes of life insurance contracts that make them particularly suitable as funding vehicles for executive benefit programs.

It comments on the professional opportunity to apply actuarial skills in the design, financing and administration of executive benefit programs, then discusses in some detail four types of executive benefit program - supplemental retirement income, life insurance, disability income, and bonus deferral arrangements - that can be delivered with less cost to the employer and greater security for the executive through efficiently designed universal life or variable life insurance contracts.

Exhibit 1: Group Life Carveout Program: Actuarial, Economic & Financial Assumptions

Sex	Male
1995 Salary	144,325
Ins_Age	51
Att_Age in 1995	51
Retirement Age	65
Age at Death	82
Current Ins. Bft.	\$508,813
Contrib. Ins.	252.5%

Smoker?	No
Salary Growth	5.0%
to Age	60
Final Salary	272,146
Exec. Tax Rate	33%
Exec. Gross_IRR	12%
Corp. Tax Rate	40%
Corp. Hurdle Rate	10%

Yr. 1 Premium	\$9,360
Annual Incr.	5.0%
to Age	60
Min. # of Prens.	15

Exhibit 1: Group Life Carveout Program: Individual Executive Projection

		===== Group Life Program =====				===== Group Life Program =====			
				Corp. Net					Net PV
				Disc_Rate	Net_P.V.	Net_P.V.	Net_P.V.	to Er.	
				6.00%	18,022	78,152	17,174	60,978	
						IRR %			
						8.04%			
Totals		Net_P.V.		\$117,834	\$38,885	\$28,039			
		1,790,552							
Age	Year	Current	Current	Imputed	Exec's	Exec	Exp.	Exp. Exec	Scheduled
Nearest		Exec_Pay	Death_Bft.	Income	Tax on	Contrib.	Death	Group Plan	Death
B'day				on Group	Imp_Inc.		Claims	Contrib.	Benefit
				Coverage					
51	1	\$144,325	\$508,813	\$543	\$179	\$1,312	2,200	1,312	508,813
52	2	151,541	534,254	585	193	1,378	2,527	1,370	534,254
53	3	159,118	560,966	628	207	1,447	2,885	1,431	560,966
54	4	167,074	589,015	675	223	1,519	3,276	1,493	589,015
55	5	175,428	618,465	1,129	373	1,595	3,701	1,557	618,465
56	6	184,199	649,389	1,208	399	1,675	4,165	1,623	649,389
57	7	193,409	681,858	1,291	426	1,758	4,681	1,691	681,858
58	8	203,080	715,951	1,378	455	1,846	5,271	1,761	715,951
59	9	213,234	751,749	1,469	485	1,939	5,959	1,833	751,749
60	10	223,895	789,336	2,441	806	2,714	6,772	2,542	789,336
61	11	223,895	789,336	2,442	806	2,714	7,367	2,517	789,336
62	12	223,895	789,336	2,442	806	2,714	8,062	2,490	789,336
63	13	223,895	789,336	2,441	806	2,714	8,867	2,461	789,336
64	14	223,895	789,336	2,441	806	2,714	9,796	2,429	789,336
65	15		335,843	7,203	2,377		4,619		335,843
66	16		302,259	6,357	2,098		4,613		302,259
67	17		268,675	5,511	1,818		4,539		268,675
68	18		235,090	4,664	1,539		4,372		235,090
69	19		201,506	3,818	1,260		4,093		201,506
70	20		167,922	5,321	1,756		3,694		167,922
71	21		167,922	5,321	1,756		3,966		167,922
72	22		167,922	5,321	1,756		4,233		167,922

Exhibit 1: Group Life Carveout Program: Individual Executive Projection

		===== Group Life Program ===== Corp. Net				===== Group Life Program ===== Net PV			
				Disc_Rate	Net_P.V.	Net_P.V.	Net_P.V.	Net_P.V.	to Er.
				6.00%	18,022	78,152	17,174		60,978
		Net_P.V.				IRR %			
Totals		1,790,552	\$117,834	\$38,885	\$28,039	8.04%			
Age	Year	Current	Current	Imputed	Exec's	Exec	Exp.	Exp. Exec	Scheduled
Nearest		Exec_Pay	Death_Bft.	Income	Tax on	Contrib.	Death	Group Plan	Death
B'day				on Group	Imp_Inc.		Claims	Contrib.	Benefit
				Coverage					
73	23		167,922	5,321	1,756		4,503		167,922
74	24		167,922	5,321	1,756		4,783		167,922
75	25		167,922	5,321	1,756		5,075		167,922
76	26		167,922	5,321	1,756		5,379		167,922
77	27		167,922	5,321	1,756		5,709		167,922
78	28		167,922	5,321	1,756		5,997		167,922
79	29		167,922	5,321	1,756		6,254		167,922
80	30		167,922	5,321	1,756		6,466		167,922
81	31		167,922	5,321	1,756		6,618		167,922
82	32		167,922	5,321	1,756		6,699		167,922
83	33						6,699		167,922
84	34						6,610		167,922
85	35						6,433		167,922
86	36						6,188		167,922
87	37						5,872		167,922
88	38						5,500		167,922
89	39						5,086		167,922
90	40						4,642		167,922
91	41						4,173		167,922
92	42						3,690		167,922
93	43						3,205		167,922

Exhibit 1: Group Life Carveout Program: Individual Executive Projection

		===== Universal Life Program =====				===== Universal Life Program =====			
				Net_P.V.	Corp. Net		Net_P.V.	Net_P.V.	Net_P.V.
				10,373	Disc_Rate	6.00%	106,758	67,827	38,931
					\$ Total		\$ Total	\$ Total	
Totals		\$22,629	\$7,467	\$16,576			164,111	163,287	
Age	Year	Imputed	Exec's	Exec	Premium	Corp	Exp. Corp.	Expected	Expected
Nearest		Income	Tax on	Contrib.		Death Bft.	Premium	Corp._Cost	Corp. Net
B'day		on UL	Imp._Inc.					Recovery	Cash Flow
51	1	\$211	\$70	\$532	\$9,360	8,828	8,828	38	(8,790)
52	2	238	79	601	9,828	18,055	9,178	85	(9,092)
53	3	274	90	691	10,319	27,683	9,521	142	(9,379)
54	4	1,107	365	793	10,835	37,725	9,868	210	(9,658)
55	5	1,262	416	904	11,377	48,199	10,223	288	(9,934)
56	6	1,416	467	1,014	11,946	59,131	10,594	379	(10,214)
57	7	1,596	527	1,143	12,543	70,531	10,963	484	(10,479)
58	8	1,697	560	1,216	13,170	82,486	11,403	607	(10,795)
59	9	1,842	608	1,319	13,829	94,995	11,828	753	(11,075)
60	10	1,997	659	1,431	14,520	108,085	12,262	927	(11,335)
61	11	2,131	703	1,527	14,520	121,079	12,051	1,130	(10,921)
62	12	2,281	753	1,634	14,520	133,965	11,822	1,368	(10,454)
63	13	2,510	828	1,798	14,520	146,688	11,534	1,648	(9,887)
64	14	2,755	909	1,973	14,520	159,235	11,229	1,976	(9,252)
65	15	1,313	433		14,520	173,755	12,809	2,390	(10,419)
66	16							150,860	150,860
67	17								
68	18								
69	19								
70	20								
71	21								
72	22								

Exhibit 2: Economic Analysis of Deferral vs. Personal Investment: Underlying Assumptions

===== Employer's Deferral Program =====

===== Non-Funded =====

Indexed Rate on Exec Accounts	Average Rate
10 Yr. Treas. + 1.5%	7.50%

Current Age	47
Retirement Age	64
Age at Death	82
Current Salary	\$125,000
Salary Growth	6.0%
Bonus, % of salary	25%
Deferral Rate	30%
Corporate Tax Rate	40%
Discount Rate	8.0%
Corporate Cost of Funds	9.0%

===== Executive's personal investment program =====

Asset Type	ROR %	Investment Policy
Tax Exempt	5.75%	0%
Bonds	7.50%	25%
Stocks	10.50%	75%
Stock, Div'd Yield	4.00%	
Port. Turnover	30%	
Def. Cap. Gains	15%	
Exec's Tax Rate	45%	
Investment Return	9.75%	
Less: Inv. Expense	0.90%	
= Net B/T Inv. Return	8.85%	
Income	4.39%	
Capital Gain	4.46%	
Net A/T Inv. Return	5.17%	

Exhibit 2: Economic Analysis of Deferral vs. Personal Investment

		==== Employer's Deferral Program ====					=== Executive's personal investment program ===			
		===== Non-Funded =====								
		Total Deferral	Final Year	A/T Value of	A-T Acct. Value			A/T Value of	= A-T Exec. =	
			Gross Pay	Cash Retained	at Retirement			Cash Retained	Cap'l @ Ret.	
		\$264,496	\$373,114	\$40,357	\$249,762			\$31,166	\$207,160	
				Employer's	PV Cost to Er.	Bonus	Employer's	PV of Er. Cost		
				Accum. Cash for	\$73,639	Allocated	Accum. Cash for	\$76,564		
Year	Age	Current Bonus	Current Deferral	Current Pay	Business Use	EOY Acct. Balance	to Savings	Business Use		
1	47	31,250	9,375	\$125,000	9,375	\$9,375	9,375	3,750	\$5,156	
2	48	33,125	9,938	132,500	19,313	20,016	9,938	7,725	10,888	
3	49	35,113	10,534	140,450	29,846	32,051	10,534	11,939	17,245	
4	50	37,219	11,166	148,877	41,012	45,620	11,166	16,405	24,277	
5	51	39,452	11,836	157,810	52,848	60,877	11,836	21,139	32,041	
6	52	41,820	12,546	167,278	65,394	77,989	12,546	26,157	40,598	
7	53	44,329	13,299	177,315	78,692	97,137	13,299	31,477	50,010	
8	54	46,988	14,097	187,954	92,789	118,519	14,097	37,116	60,348	
9	55	49,808	14,942	199,231	107,731	142,350	14,942	43,092	71,685	
10	56	52,796	15,839	211,185	123,570	168,865	15,839	49,428	84,102	
11	57	55,964	16,789	223,856	140,359	198,319	16,789	56,144	97,682	
12	58	59,322	17,797	237,287	158,156	230,989	17,797	63,262	112,519	
13	59	62,881	18,864	251,525	177,020	267,178	18,864	70,808	128,710	
14	60	66,654	19,996	266,616	197,016	307,213	19,996	78,806	146,360	
15	61	70,653	21,196	282,613	218,212	351,449	21,196	87,285	165,582	
16	62	74,892	22,468	299,570	240,680	400,276	22,468	96,272	186,497	
17	63	79,386	23,816	317,544	264,496	454,112	23,816	105,798	209,235	

Exhibit 3.1: Economic Analysis of Funding with Corporate Owned Life Insurance

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Current Age	47
Retirement Age	64
Age at Death	82
Current Salary	\$125,000
Salary Growth	6.0%
Bonus, % of salary	25%
Deferral Rate	30%
Corporate Tax Rate	40%
Discount Rate	8.0%
Corp. Cost of Funds	9.0%
VL Prem,% of Def'r'l	125%

Asset Type	ROR %	Inv. Policy	
Bonds	7.25%	25%	
Stocks	10.25%	75%	
Stock, Div'd Yield	4%		
Port. Turnover	40%		
Def. Cap. Gains	15%		
Exec's Tax Rate	45%		
Investment Return		9.50%	
Less: Inv. Expense		0.96%	
= Net B/T Inv. Return		8.54%	
Pre-ret Deaths	Probability	Crediting Rate on Exec's Account	
	57		12%
Post-ret Deaths		82	88%

Executive directs investments

Exhibit 3.1: Economic Analysis of Funding with Corporate Owned Life Insurance

Year	Age	Current Bonus	Current Deferral	Total Deferral \$264,496	VL Premium	AT Value of Cash Retained \$19,216	Employers' Business Use Accum. Cash for	A-T Acct. Value at Retirement \$270,936	PV of Cost to E.R. \$63,506	EOY Acct. Balance	Death Benefit	Required Cash Value
1	47	31,250	9,375		11,719	(2,344)		9,375		900,000	900,000	5,625
2	48	33,125	9,938		12,422	(4,828)		20,113		918,000	12,068	12,068
3	49	35,113	10,534		13,167	(7,462)		32,365		936,540	19,419	19,419
4	50	37,219	11,166		13,957	(10,253)		46,294		955,638	27,777	27,777
5	51	39,452	11,836		14,795	(13,212)		62,083		975,305	37,250	37,250
6	52	41,820	12,546		15,682	(16,348)		79,931		995,564	47,959	47,959
7	53	44,329	13,299		16,623	(19,673)		100,056		1,016,431	60,034	60,034
8	54	46,988	14,097		17,621	(23,197)		122,697		1,037,924	73,618	73,618
9	55	49,808	14,942		18,678	(28,933)		148,118		1,060,062	88,871	88,871
10	56	52,796	15,839		19,799	(30,892)		176,606		1,082,864	105,964	105,964
11	57	55,964	16,789		20,988	(30,862)		208,478		1,106,350	125,087	125,087
12	58	59,322	17,797		22,246	(28,747)		244,078		1,130,540	146,447	146,447
13	59	62,881	18,864		23,580	(24,596)		283,787		1,155,457	170,272	170,272
14	60	66,654	19,996		24,985	(20,197)		328,018		1,181,120	196,811	196,811
15	61	70,653	21,196		26,465	(16,534)		377,227		1,207,554	226,336	226,336
16	62	74,892	22,468		28,085	(12,691)		431,810		1,234,780	259,148	259,148
17	63	79,386	23,816		29,770	(9,352)		492,611		1,262,824	295,566	295,566
18	64									490,585	0	0
19	65									464,103	0	0
20	66									476,028	0	0
21	67									492,367	0	0
22	68									507,138	0	0
23	69									522,352	0	0
24	70									538,022	0	0
25	71									554,163	0	0
26	72									570,788	0	0
27	73									587,911	0	0
28	74									605,549	0	0
29	75									623,715	0	0
30	76									642,427	0	0
31	77									661,700	0	0
32	78									681,550	0	0
33	79									701,997	0	0
34	80									723,057	0	0
35	81									744,749	0	0
36	82									767,091	0	0

Executive directs investments

Exhibit 3.2: Economic Analysis of Funding with Corporate Owned Life Insurance

Current Age	47
Retirement Age	64
Age at Death	82
Current Salary	\$125,000
Salary Growth	6.0%
Bonus, % of salary	25%
Deferral Rate	30%
Corporate Tax Rate	40%
Discount Rate	8.0%
Corp. Cost of Funds	9.0%
VL Prem, % of Def'r'l	125%

Employer controls investments

Asset Type	ROR %	Inv. Policy
Bonds	11.50%	100%
Port. Turnover	40%	
Def. Cap. Gains	15%	
Exec's Tax Rate	45%	
Investment Return		11.50%
Less: Inv. Expense		0.95%
= Net B/T Inv. Return		10.55%
Pre-ret Deaths	Probability	Crediting Rate on Exec's Account
	57 12%	
Post-ret Deaths		9.50%
	82 88%	

Exhibit 3.2: Economic Analysis of Funding with Corporate Owned Life Insurance

Year	Age	Current Bonus	Current Deferral	VL Premium	A/T Value of Cash Retained		A-T Acct. Value at Retirement	Death Benefit	Required Cash Value
					\$35,427	\$292,434			
Total Deferral \$264,496				Employer's Accum. Cash for Business Use		PV of Cost to Er. \$33,191			
				EOY Acct. Balance					
1	47	31,250	6,375	11,719	(2,344)	9,375	1,300,000	5,625	
2	48	33,125	9,938	12,422	(4,828)	20,203	1,327,000	12,122	
3	49	35,113	10,534	13,107	(7,462)	32,656	1,354,610	19,564	
4	50	37,219	11,168	13,957	(10,253)	46,924	1,383,454	28,155	
5	51	39,452	11,836	14,795	(13,212)	63,218	1,412,958	37,831	
6	52	41,820	12,548	15,682	(16,348)	81,789	1,443,347	49,062	
7	53	44,329	13,299	16,623	(19,673)	102,836	1,474,647	61,702	
8	54	46,888	14,097	17,621	(23,197)	126,702	1,506,886	76,021	
9	55	49,808	14,942	18,678	(28,933)	153,681	1,540,063	92,209	
10	56	52,796	15,939	19,799	(30,892)	184,120	1,574,296	110,472	
11	57	55,964	16,789	20,989	(42,328)	218,400	1,609,625	131,040	
12	58	59,322	17,797	22,246	(53,413)	256,945	1,646,110	154,167	
13	59	62,881	18,864	23,580	(64,263)	300,219	1,683,185	180,131	
14	60	66,654	19,998	24,995	(76,864)	348,736	1,721,680	209,241	
15	61	70,853	21,196	26,495	(90,062)	403,062	1,761,331	241,837	
16	62	74,892	22,468	28,085	(102,258)	463,820	1,802,171	278,292	
17	63	79,386	23,816	29,770	(115,018)	531,699	1,844,238	319,019	
18	64			0	115,018		497,783	0	
19	65			0	115,018		512,716	0	
20	66			0	115,018		528,098	0	
21	67			0	115,018		543,941	0	
22	68			0	115,018		560,259	0	
23	69			0	115,018		577,067	0	
24	70			0	115,018		594,379	0	
25	71			0	115,018		612,210	0	
26	72			0	115,018		630,578	0	
27	73			0	115,018		649,494	0	
28	74			0	115,018		668,978	0	
29	75			0	115,018		689,046	0	
30	76			0	115,018		709,719	0	
31	77			0	115,018		731,011	0	
32	78			0	115,018		752,941	0	
33	79			0	115,018		775,529	0	
34	80			0	115,018		798,795	0	
35	81			0	115,018		822,759	0	
36	82			0	860,767		847,442	0	

Employer controls investments

The Actuary and the UK Pension Trustee

David Martin, United Kingdom

Mrs Bertram: That sounds like nonsense, my dear.

Mr Bertram: May be so, my dear; but it may be very good law for all that.
Guy Mannering by Sir Walter Scott (1815)

1 An Historical Introduction

1.1 The period between the entry of the Pensions Act 1995 on to the UK Statute Book last year and the effective date of April 1997 for most of its provisions seems a suitable time to review the relationships between the actuary and the UK pension trustee. Much of this legislation and the regulations (which are awaited, and being consulted upon, at the time of writing) affect these two figures in the pensions arena.

1.2 The UK Trustee has an interesting background. The concept of a Trust developed early in English Law, but is absent from the law of many other countries. At the end of last century large amounts of case law built up about family trusts. The duties and obligations of Trustees were established, and the concept of equitable ownership grew and was dealt with in the Chancery Division of the courts. Trustees were to be more prudent and cautious than in handling their own affairs.

The Trustee Act 1925 substantially consolidated previous trust law, much as the Pensions Act 1995 does in the pensions field. In the 1980s surpluses which had grown up in UK pension schemes proved attractive to predatory companies. Surpluses were removed by contribution holiday and by payment to the employer in some rare circumstances, until this practice was regularised by the Government which allowed payments after taking 40% tax. Contribution holidays or reductions diminished the perceived value of pensions. Significant pension rights accrued without substantial further contribution from member or employer. The debate over who owns surplus raged.

1.3 Spectacular crashes in the business world at large occurred at the end of the 80s, following the heady earlier years in the financial world generally. The tense electric atmosphere which surrounded pensions in those same years was alarmingly shattered by the storm which followed Robert Maxwell's enigmatic disappearance. The torrential downpour of problems and concerns that began shortly after that thunderbolt in November 1991, has scarcely ceased since. The role of the Trustee,