Variable Universal Life Insurance: Is it Worth it?

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I. Introduction

Variable life insurance provides death benefits and cash values that vary in accordance with the performance of a selected investment portfolio. It has been available in the United States for about a quarter of a century. The policyowner may allocate premiums (net of premium charges) among investment accounts that offer a wide range of risk and opportunity, from money market and government bond accounts to domestic and international equity accounts.

In the 1990's, a period of rapidly rising equity values, sales of variable insurance rose from about 400,000 policies in 1990 to about 1,400,000 policies in 2000. In 2000, variable life insurance captured about 57% of the market for individually sold, new cash value policies when measured by new premiums. Total premiums (for the first policy year) for all cash value policies came to about $16.8 billion in 2000, of which variable life premiums were about $9.6 billion. More than 94% of variable sales were on the policy form known as variable universal life (VUL), the subject of this report. The firm Tillinghast, actuarial consultant to many life insurers, recently reported that sales in 2002 are expected to trail 2000 by about 35%, reflecting stock market woes. At the same time, Tillinghast predicted a return to 2000 sales levels by the year 2005, but this outlook may be unduly optimistic. In any event, it is clear that variable life insurance is a big market in the United States, representing an estimated 40% or more of new premiums at the reduced sales level.

The writer is a life insurance actuary who for more than 15 years has operated a service evaluating cash value life insurance policies. Since 1995, that service has been under the auspices of the Consumer Federation of America. See www.evaluatelifeinsurance.org or www.consumerfed.org. In general, a cash value life insurance policy is either whole life (WL), universal life (UL) or variable universal life (VUL). Cash value policies may also be defined as non-term life insurance policies that build policy values, which may be borrowed against or received upon surrender of a policy. A term life policy provides death protection only for a period of years; it builds no cash values.

Early variable life policies operated like a fixed premium, whole life policy. Although WL policies have much more premium flexibility in today's market than historically, once purchased the premium usually remains the same, as does the death benefit (unless any policy dividends are used to purchase additional, paid-up insurance). So it was with early variable life policies – premiums were fixed and death benefits grew only with favorable investment results. Like WL, the accounting was done on an annual basis. In the early 1980's, universal life (UL) became popular; it is formally known as "flexible premium whole life," and its accounting is on a monthly basis. If the net policy value (policy value less any surrender charge) is sufficient to cover monthly insurance costs, premium flexibility can include paying no premium. Or, subject to a limit a higher premium can be paid. A UL's face amount can also be varied but this right is somewhat circumscribed. If the face amount is increased, evidence of insurability is required and commissions and other charges apply, as with a new policy. If the face amount is decreased within any surrender charge period, a pro rata surrender charge almost always applies. UL gained a market share approaching 50% in the 1980's, but that share dropped to about 30% in the 1990's in part due to far lower interest rates being credited to UL policies and in part due to fast growing variable life insurance. In the 1990's, virtually all variable life policies took on the premium flexibility and monthly accounting of UL. In this report, we direct our attention to flexible premium, variable universal life (VUL).

As noted, the distinguishing feature of a VUL is that premiums may be allocated to one or more investment accounts, known as "separate accounts." A separate account resembles a mutual fund in its operation. Life insurers offering VUL's typically have from ten to twenty choices of separate accounts. As with mutual funds, operating expenses and investment management fees are assessed against the accounts as asset charges, frequently in rather impressive amounts; as will be seen below, these are only some of the expense charges incorporated in variable life insurance

policies. Separate accounts may be managed by the insurer or farmed out to be managed by well-known mutual fund companies. In the latter event, a portion of the asset charges may be rebated to the insurer. There is a virtually unlimited right to shift from one separate account to another without charge or taxes, a significant selling point.

Variable life insurance policies are securities under federal law and are subject to the rules of the Securities and Exchange Commission (SEC). They may be sold only when accompanied by a prospectus, always a formidable document. Until about five years ago, the writer believed that SEC oversight effectively limited what we might call the imagination of actuaries who design the policies. We used to say that some of the manipulation in WL and UL policies issued in the late 1980's and early 1990's was not found in VUL policies. Subsequently, insurance regulators adopted rules limiting this manipulation in WL and UL, but these rules did not apply to VUL policies. Meanwhile, the SEC eased its review of VUL policies submitted to it for registration. Today, some of the manipulation we saw years ago has crept into VUL's. SEC regulation has the effect of limiting certain charges, but in general life insurers operate within a broad range of reasonableness, which they themselves largely define.

As a security, the sale of a variable life policy must be found by the insurer to be **suitable** for the buyer. Compliance departments in life insurance home offices have a duty to review applications to make sure they fit buyers' financial circumstances. As far as we can see, the acceptance threshold is extremely low; suitability rules appear to have no limiting effect we can see. Ever since a young woman asked us to review a Prudential variable policy for which she was paying $23 per month, of which $2 came off the top before other premium deductions, we have had a dour view of suitability compliance.

II. How Variable Universal Life is Sold

While the attribute to combine life insurance and "mutual funds" in one package has inherent attraction, its sale is primarily, if not almost exclusively, related to the tax advantages that all cash value policies enjoy. Life insurance has been called "the last tax shelter." Indeed, the writer has noticed that sales illustrations routinely state a marginal tax bracket for the prospect even though the tax bracket does not affect any of the illustrated values. (There are of course tax-favored investment accounts such as 401-K's, tax-deductible IRA's, Roth IRA's, and so forth, but all these have limitations usually scaled to income.) The tax advantage of cash value life insurance is that investment earnings credited to the policy each year produce no taxable income to the policyowner. If the policy is later surrendered with a taxable gain, the gain is lowered by the value of the insurance protection received. (One may not deduct the cost of term life insurance from the taxable gain on the sale of mutual fund shares.) If the policy is held until the death of the insured, no taxable income will ever be realized under current law. (There can be exceptions to this last statement that are not applicable to normal VUL sales.) It is true that annuities have tax advantages, but annuity earnings are only tax-deferred; at death any gain will be taxable to someone.

Accordingly, a typical VUL sales presentation will feature not only the income tax advantages noted just above but also will stress the attractiveness of tax-free distributions when the money is needed. Usually, the sales pitch is directed toward retirement planning, but quite often it will incorporate saving for college expenses. Collateral uses, not restricted to VUL's, are to shield assets from creditors in some states and from financial aid administrators at some college and universities. A self-employed person who wants to save for retirement but does not wish to incur the employee expenses and administrative nuisances of a pension plan is a good VUL prospect.

The typical sales illustration shows future premiums, cash values, death benefits, and tax-free distributions, all based on some hypothetical investment earnings rate, such as 10% per year. With an assumed investment return this high, projected over thirty or forty years in the future, illustrated retirement distributions can be very large. (In the late 1990's when stocks were rising, a 12% earnings rate was often used; in the last two years we rarely see 12%, and 8% has become a popular assumption. It should be noted that illustrations also include a 0% earnings illustration, but never a negative earnings assumption, the reality in the last two years.) Illustrated distributions so far in the future never discount for inflation.

The form of illustrated retirement distributions is, first, partial withdrawals up to "basis," which is generally total premiums paid if no riders, then systematic loans using favorable loan rates. Loans are explained later. That one has to keep his or her policy until death to enjoy most of the tax advantages is never noted in illustrations, at least in what we can recall seeing.

A prospective buyer lured by a VUL's tax advantages should reflect on the reality that life insurance is the only savings medium we can think of that is subject to a 3% "sales tax" in the form of state and federal premium taxes. It takes a long time for the "tax-free inside build-up" of a cash value policy to overcome this burden, particularly when burdened by unreasonably high selling costs.

III. How a Variable Universal Life Policy Works.

We hear that hardly anyone reads his or her prospectus. This is understandable, but regrettable. A few customers who have done so have been impressed by the array of charges outlined. The explanation that follows is hardly as thorough as that in a VUL prospectus, so if the reader is in the market for a VUL, take the time to read at least those pages of the prospectus that outline the charges.

It may be helpful to analogize a VUL policy to an open-end mutual fund, one in which the owner may make additional investments at any time. Although most VUL "investments," i.e., premiums, are either billed annually, semi-annually or quarterly, or automatically deducted from checking accounts monthly, a VUL owner could send money at any time, subject to minimum and maximum rules. In practice, the contract establishes a "Scheduled Premium" that will be billed or collected according to the owner's preference. All VUL premium payments are subject to a "load," a percentage deduction, analogous to a front-end loaded mutual fund but at least in part for a different reason: state and federal premium taxes must be paid.

What distinguishes a VUL from a mutual fund is that deductions are made from the account monthly to cover insurance-related charges. These include cost of insurance (COI) charges on the insured, monthly administrative charges, and any rider costs. Riders provide ancillary insurance benefits such as waiving premiums or paying monthly charges if the insured is disabled, providing extra death benefits if the insured dies accidentally, and extending life insurance to a spouse or to children.

Like a mutual fund, daily deductions are made for (a) investment management and administrative costs associated with the separate accounts and for (b) the "Mortality & Expense" (M&E) charge. VUL insurers undertake certain risks, such as guaranteeing death benefits when markets fall and guaranteeing future expense charges regardless of inflation, and the M&E charge is one way they charge for the guarantees. For example, IDS (American Express) policies guarantee until age 70 (or five years if later) that the death benefit will be paid even if the net surrender value becomes negative, provided a certain level of premiums is paid. The M&E charge is also a source of insurer profits.

To summarize how a VUL operates:

- A premium is paid. The first premium places life insurance in effect for a "Specified Amount," which defines the death benefit.
- A percentage deduction is made from each premium to cover taxes, premium collection expenses, and sales and other start-up costs. Typical premium "loads" total about 5% or so, but we have seen them as high as 11%. (State premium taxes and federal taxes usually assessed against premiums average perhaps 3%, a significant and little understood offset to the vaunted tax advantages of cash value life insurance.)
- The balance of the premium is allocated to separate accounts as selected by the policy owner. Daily deductions are assessed against the separate accounts for investment management and for the M&E charge.
- Monthly charges are assessed against the separate accounts for administrative costs, usually $5 to $10, and for all insurance charges.
- Policy values change daily with the market.
- A surrender charge is stipulated in the contract, generally a function of the Specified Amount, but also varying by other factors. (On larger VUL's, surrender charges can be in the tens of thousands.) The surrender charge declines to zero over a period ranging from 10 to 20 years. (Not infrequently, it increases before decreasing, and it often may remain level for five to ten years.) Although this charge is assessed only on full or partial surrender of the policy (or a reduction in Specified Amount) within the surrender charge period, do not assume it may be ignored if you intend not to surrender. Its function is to allow the insurer to recoup sales and other costs during the surrender charge period that the explicit charges such as premium loads do not cover. More on this point later.

A "low-load" insurer's VUL would have no surrender charge. Low-load insurers sell direct to the public or through fee-only financial planners, and they pay no agents' commissions. They of course have selling expenses, and they may pay low commissions to marketing groups.

IV. Choice of Specified Amount and Death Benefit Option

There are usually two choices of death benefit patterns, called Option A and Option B. Option A provides a level death benefit – the Specified Amount (like the "Face Amount" of a traditional WL policy) -- while Option B's death benefit is the Specified Amount **plus** the Policy Value (before deduction of any surrender charge) at time of death. (Recently we saw Option C, which was Option B to age 65, then Option A thereafter – a level amount equal to whatever Option B had grown to at age 65.)

If level Option A develops Policy Values large enough to approach the Specified Amount, the death benefit will begin to rise to preserve a "corridor" of life insurance above the Policy Value. Corridor multiples of the policy value range from 2.5 at age 40 and under to 1.05 at ages 75 to 90; after age 95 the Policy Value and the death benefit may be equal. There is another, less frequently used way to define the relationship between the Policy Value and the death benefit in which the multiples are somewhat higher.

VUL Options A and B follow similar choices in UL, as it was introduced more than 20 years ago. One of the canards among technically challenged WL insurance critics and those who profess that only term life insurance should be bought ("termites") – usually the same parties -- has been that on death WL paid the beneficiary only the death benefit while keeping the cash value for itself. By contrast, buying term life and investing the premium differences externally provides a death benefit of the sum of both elements. This claim conveniently ignores the fact that a WL insurer levies mortality charges throughout a policy's life only on the difference between the death benefit each year and the policy's reserve (cash value, essentially). UL's Option B allows one to choose to have both the original face amount plus the cash value at death. Not surprisingly, Option B costs more. A digression on this subject follows.

In traditional, fixed-premium WL, the reserve approaches the face amount at the limiting age in the policy, age 100 for many years now. This is what allows the WL insurer to offer level premiums for a risk of death that obviously increases with age. Failure to pay the premium due, by loan or in cash (which could come from dividend values), will cause the policy to lapse. One does not have the right to expand or lower the "amount at risk" in the policy, which is the death benefit less reserve (cash value). In contrast, a UL or VUL policy will continue without any premium payments until the surrender value (policy value less any surrender charge) is insufficient to cover the monthly deductions. Any life actuary will instantly agree that flexible-premium UL and VUL forms allow the policyowner to manipulate the policy to his or her potential advantage. (Policyowner ignorance allows insurers largely to ignore this risk.) An Option A (level death benefit) policyowner who receives word from his doctor that his life span may be shorter than hoped for should immediately stop premium payments and bank the money: the "death benefit" will then be the sum of the Specified Amount and the bank account. This strategy could become a bit dicey if the insured lives too long since depletion of the Policy Value increases the risk amount (Specified Amount less Policy Value) which in turn increases future insurance charges thereby decreasing the Policy Value further, and so forth. To say this more simply, the premium flexibility of VUL and UL allows the Option A policyowner to increase the amount of insurance in the future if in poor health. Conversely, those in good health may take advantage of the right to decrease the Specified Amount; this may decrease insurance charges more than it decreases future death claims, costing the insurer money. (The tendency of those in better-than-average health to leave the insured group leaves a higher cost book of business.) Similarly, Option B owners may switch to Option A to reduce costs, but those in poor health will tend to continue the higher insurance amounts. The subtlety of the Option A strategy is probably so remote as not to be significantly costly to the insurer, but it is likely sooner or later that the policyowner will notice the growing costs of Option B in the insurer's annual accounting of the monthly activity.

The observations above are part of the reason we favor traditional WL life over UL – the flexibility of UL comes with certain long-run costs. When it comes to variable life, however, other factors weigh against recommending fixed-premium forms – the main reason being that most insurers have switched to VUL.

Should the reader select Option A or Option B? Some argue that one's future earnings are apt to be higher so a rising death benefit makes sense, but we would argue that one ought to anticipate that likelihood and buy a higher amount now. In theory, buy enough life insurance to cover the present value of future earnings (after adjusting for taxes and

other factors), particularly when you're young and term life is so inexpensive. Others suggest that Option B allows one to choose at a later date whether to continue the rising benefit or switch to a level benefit if in good health. (Many with Option B VUL's have seen decreasing death benefits as the values of separate accounts have fallen in the last two years.) That option is obviously attractive. If you choose Option B, file away a mental note to switch at some time in the future if you remain in good health. Option B is equivalent to buying increasing premium, level term insurance for life; this has never worked: escalating premiums force those in good health to quit while those in poor health tend to hang on, the spread of risk deteriorates, and renewal premiums are forced ever higher.

Other considerations are often more important in the choice of a death benefit option. We'll discuss these in the section on how to buy VUL's efficiently.

V. Insurance Charges

Suppose you buy a $1,000,000 VUL with premiums of $10,000 per year subject to a 5% load. Option B's death benefit is $1,009,500 (1,000,000 + 95% of $10,000) before any market changes or insurance deductions. Option A's death benefit would be $1,000,000. Monthly cost of insurance (COI) charges will be assessed immediately against $1 million "amount at risk," in Option B, $990,500 of risk in Option A. (The amount at risk at the beginning of any monthly accounting period is essentially the death benefit less the Policy Value.) In time with continued payments of Option A premiums and decent separate account performance, Option A's amount at risk will decline. This simply restates the discussion in the prior section. We could call the amount at risk "term insurance;" it is not so called but it is analogous to yearly renewable term life insurance (YRT), whose premium rates increase with age. The supplementary pages of a few VUL illustrations identify the schedule of COI rates that will be assessed if no future changes in them are made. Usually, "current" COI rates are not so identified; the prospectus may give examples, but they are not tailored to the buyer's age, sex and classification. Only maximum COI rates are found in VUL contracts.

When one observes COI rates or approximates them through "reverse engineering," they are usually found to be significantly higher than YRT rates. This is one of the ways insurers recoup high sales costs during the surrender charge period and add to profit margins. (WL insurers gain their margins in large measure by paying out less in investment returns than they earn on invested cash values; this source of profit is not available in a VUL.) Knowing this about COI rates can help in buying or managing a VUL. Our impression is that most VUL's are bought (sold, really) as investments that also provide life insurance: tax-advantaged college funding and retirement planning, particularly. We see comments like this frequently, "The policy for [W. C.] was initially bought with the idea that at retirement the policy would give us tax-free retirement income." As one approaches the end of one's working life, the need for life insurance to replace future earnings at death declines. A VUL policyowner who remains in good health should consider decreasing the risk amounts by taking advantage of the flexibility of a VUL to lower the death benefit, especially if COI rates are high. (This tactic is almost always **not** effective within a surrender charge period as a reduction in the Specified Amount triggers a pro rata surrender charge.) Similarly, an Option B policyowner may switch to Option A, which can be done at any time without charge.

Recently, we reviewed a VUL and a WL for the same person in the same insurer, a medium-sized mutual life company. The COI rate for a 1993 UL policy was $1.22/yr/$1,000; for the 1998 VUL policy the rate was $1.98. In evaluating the policy, we used a YRT rate of about $.55/yr/$1,000 at age 33 for this male nonsmoker . Because the 1998 VUL policy was issued later, its mortality cost to the insurer would have been lower due to the more recent medical evaluation, yet the COI rate was higher. In another example, the COI rate was $1.53 while YRT could be bought for about $.78.

These examples serve to warn the reader that when high VUL insurance amounts are bought, insurance costs can detract substantially from long-term investment returns. It is equally important to understand these warnings: (1) continuing an Option B VUL well into retirement years may be said to be a gamble on dying sooner rather than later; and, (2) maintaining a level Option A death benefit may be imprudent if the Policy Value is not a high percentage of the death benefit as one becomes elderly. VUL policyowners need to manage their policies in retirement years.

VI. Choice of Separate Accounts

We do not make specific recommendations of which separate accounts to use. But where relevant, we comment on separate accounts as follows:

- ? It does not make sense to buy a VUL unless one allocates a fairly high percentage of his account assets to equities or other accounts that offer comparable chances for higher returns – perhaps real estate or high-yield corporate bonds. VUL's tend to be more expensive than WL, in part due to the need for SEC compliance. As WL assets are invested mainly in corporate bonds and mortgages, one should be cautious about buying a VUL in order to select a high percentage of either of these.
- ? Similarly, avoid money market accounts for other than short periods of time; if one wishes to guard against an over-priced market, the fixed account is apt to provide a higher yield. But there will be restrictions on the movement of money in and out of the fixed account. One VUL insurer we noticed allows transfers into the fixed account only in the month prior to the policy anniversary; transfers out are likely to be limited.
- ? Investment management asset charges can be high, especially for external separate account managers. One should consider index funds, which are considerably less expensive. John Hancock offered one of our clients 22 different separate accounts. Total investment management asset charges were just 20 "basis points" for the Equity Index account. (A basis point is one one-hundredth of 1% per year, or .01%.) Charges for other non-index accounts averaged nearly 100 basis points, topping out at 162 basis points for the Emerging Market account.
- ? We have seen VUL owners choose as many as fifteen separate accounts, possibly in the interest of diversification. (More likely, the selling agent recommended this choice to them.) This is far too many in our opinion: good performers are likely to be offset by the bad. One or two broad indexed accounts can achieve diversification at lower cost.
- ? In comparing competing VUL illustrations, it is necessary to have at least roughly similar asset charges. We have seen an agent specify an index fund selection in presenting an illustration designed to persuade our customer to switch from an existing VUL, setting up a comparison using 44 basis points compared to 70 basis points for the existing policy's illustration. Illustrations are always based on some hypothetical, gross future earnings rate, say 10%. Assumed asset charges are then deducted from the gross rate to get a net rate that is used to carry values forward. Until recent years, the net rate shown in the illustration (10% Gross, 8.42% Net, for example) included deductions for both investment management and the M&E charge. More often than not now, the net rate shown in the illustration's column headings omits the M&E charge, disclosure of which is shifted to the illustration's fine print and thus obscured.
- ? If we see asset charges that are simply high, we comment on it. A recent Allmerica VUL had total asset charges of 165 basis points – 80 M&E and 85 average investment management. The highest found among the last 80 reviews was Western Reserve Life's 182 basis points, of which 90 were the M&E charge, the maximum allowed under SEC regulations.
- ? The charges for investment management, as far as we can see, are not limited by contractual guarantees, as are maximum charges for premium loads, cost of insurance rates, administrative charges and the M&E charge.
- ? A Pacific Life illustration indicated an M&E charge that was not a percentage of assets. Instead, during the first ten years the charge was $3,000 each year, followed by a nominal $100/year thereafter. The $3,000 charge was scaled to the large face amount, but it is evident that $30,000 is a lot of money to pay for neither insurance nor investment management. This design incorporates a form of "lapse support," meaning that profits from those terminating in the first ten or so years may be held and used in future years to lower costs for persisting policyowners. VUL's are exempt from state insurance regulations that limit this practice for UL and WL. To be fair, many insurers lower their percentage M&E charge after 10 to 20 years. Ameritas, our favorite VUL insurer in recent years, charges 75 basis points for years 1-20, 45 thereafter. Its second-to-die policy, which would have higher face amounts and premiums, assesses 60 basis points in years 1-15, 30 thereafter.
- ? Nationwide has M&E charges that scale down to .1%, the lowest we know of. Its schedule is 60 basis points applied to the first $25,000 of policy assets (Account Value or Policy Value), 30 on the excess of $25,000 to $225,000 (reduced to 10 after 15 years), and 10 on the excess of $225,000 up. This schedule appears attractive to some one with substantial sums invested in a VUL. But what if, as we guess is the case, Nationwide receives rebates of investment management fees? We have been told that outside investment managers sometimes have two fee schedules to offer VUL insurers: one with rebate fees built in and a lower one with no rebate fees. And, what if Nationwide's insurance charges are higher than average? As usual, the buyer needs to know a lot not to be drawn to a VUL by one of many features.

? In our work we occasionally receive copies of quarterly or annual reports sent to VUL owners. As far as we can tell, there is no disclosure of the asset charges that are deducted from policy values. Only changes in asset values for the period reported on are shown.

Some perspective may be gained if we point out that asset charges for the indexed mutual funds of Vanguard can be less than 20 basis points.

VII. Surrender Charges

If you buy a VUL from a life insurance agent, the policy will include a surrender charge (SC). (If not, premium loads will be very large.) We can think of only two VUL's of more than 100 reviewed in the last year that had no **explicit** SC; one of those is dissected below. A typical SC lasts about 12 years, but several insurers limit the period to 10 years. All SC's decline in steps to zero, but patterns differ among insurers. We see quite a few VUL's whose SC is level for five years, then declines, but others may increase for a few years before declining. SC's can be huge, as in this $1million VUL policy sold to a 33-year old by MET Life: $9,847 in year 1, $13,129 in year 2, $11,816 in year 3, $10,503 in year 4, $9,191 in year 5, decreasing monthly thereafter to zero in year 12. The largest SC we can recall seeing was $123,000 on a $3 million Sun Life second-to-die proposal to replace the Hartford policy discussed below.

Do not make the mistake of nodding in agreement if an agent says, "If you don't intend to surrender, the surrender charge doesn't matter." The SC gives the insurer either time to recover high sales costs over the SC period or allows it to recoup unrecovered costs if you surrender earlier. Instead, identify the maximum SC and ask if you wish to pay your agent this much money to sell you the policy. Life insurance agents not only receive commissions in the year of sale but also renewal commissions. And their bosses – general agents or managing agents – receive commissions and/or expense allowances. (Independent brokers can negotiate to receive both sources of revenue.) This estimate of selling costs is a rough one, but it is accurate enough for the buyer of a VUL to get a sense of how much of his money is not going to work for him. An alternative rough measure of selling costs is to take the difference between the illustration's first year premium (including any transfer) and the end-of-first-year **surrender** value.

The Hartford policy described below was sold without an explicit surrender charge. It was a second-to die (survivorship) policy with a $3 million death benefit and $40,000 annual premiums; a transfer of about $325,000 from another insurer was added to the first year's premium. After one year of assumed growth at an 8% rate, the surrender value was about $80,000 less than the first year total premium, or about $95,000 less if one counts lost interest at 7%. This picture of course looks just like the typical VUL with a SC. Here is the schedule of premium deductions Hartford used to cover most of its sales costs, slightly changed from the original:

Policy Years	Percent of Premium Paid up to $215,000	Percent of Premium in Excess of $215,000
1	42.79 %	9.00 %
2-5	12.84	4.00
6-10	8.56	4.00
11+	1.71	1.71

Note in particular that in the first year, the 42.79% premium deduction applied not only to the new premium of $40,000 but also to $175,000 of the transferred cash value (215,000 – 40,000). If a 9% load had been applied to this portion of the transferred $325,000, savings would have been nearly $60,000. Had a transfer been made to Ameritas, whose premium load is 3.5%, savings would have been more than $90,000. The practice of paying first year commissions on transferred policy values, which is standard practice for all UL and VUL life insurers as far as we know, strikes this writer as highly objectionable.

In addition to the high premium loads, Hartford charged maximum cost of insurance (COI) rates in the first six years, something not seen before by this observer in second-to-die policies, whose mortality cost – chances that both will die – are near zero in the early policy years. An inquiry to our clients confirmed that Hartford had not disclosed in the prospectus that it would do this; instead it said that it reserved the right to charge COI rates up to the maximum, which every insurer says it reserves the right to do. This tactic soaked up something like $75,000 of our client's money, although COI rates after policy year 6 were very low in partial compensation.

Given the pattern of scaled down premium loads, we showed how the owners could stop paying $40,000 premiums for years 6-10, invest them in a mutual fund, pay taxes on mutual fund dividends and capital gains at the end of year 10, dump the net proceeds in the policy in year 11 at the very low premium load of 1.71%, and save nearly $10,000.

The Hartford VUL was not typical, but it is instructive in this sense: similar charges will be extracted one way or the other by most other VUL insurers with conventional policy designs having, say, a 5% premium load and a typically large surrender charge. For the record, we advised our client that the policy was well worth keeping for the long run, but he and his wife were uneasy about holding common stocks and switched to a minimized commission, whole life policy, which nonetheless less had significant acquisition costs.

VIII. Variable Life Policy Loans

It appears to us that the primary VUL sales tool is tax-oriented. Whether for college funding or retirement funding (more often the latter), the buyer is sold on the ability to take "tax-free" withdrawals from the policy values. Except for "MEC" contracts, rarely seen and explained later, tax rules allow one to take distributions from a VUL as partial withdrawals up to "basis," after which loans may be used to get money out of the policy without income tax implications. "Basis" is the sum of all premiums paid, adjusted for any charges that provide benefits other than life insurance on the insured. If, for example, one had a disability rider, basis would be the sum of all premiums paid less charges for the rider. The powerful sales point "tax-free" is an example of effective puffery; virtually any loan is tax-free, such as a Home Equity Loan. Because any cash value policy may have a taxable gain on surrender if held long enough, the term is designed to connote the ability to take money out of the policy without triggering income taxes.

Partial withdrawals and loans may be taken only from the "fixed account." If an owner has 100% in a stock separate account and wants to take a withdrawal or loan, he or she must liquidate shares in the stock separate account in at least the amount of the desired distribution and place the money in the fixed account before withdrawal or loan. Partial withdrawals carry a transaction fee -- $25 is typical; loans require interest payments. In general, if one's need for the money is short term, a loan is better; if long term, a partial withdrawal is preferred. Either a partial withdrawal or loan lowers the death benefit by the amount withdrawn. Thus, if the death benefit is $1,000,000 and the cash value is $100,000, a $50,000 distribution lowers the death benefit to $950,000 and the net cash value to $50,000.

A VUL policy loan may be repaid at any time without penalty; by doing so, the death benefit may be restored. In contrast, a partial withdrawal may not be repaid. It is true that the premium flexibility of a VUL would allow the amount withdrawn to be repaid as a new premium, but this would incur a premium deduction. If the partial withdrawal is from an Option A policy, the death benefit would not be restored. While increases in the Specified Amount are permitted with evidence of insurability, this procedure would incur both administrative and selling expenses.

Note that in a falling market loans can be money-saving: if you were 100% invested in a stock separate account and took a maximum loan, you would no longer be exposed to the volatility of the stock account. Conversely, in a rising market loans can be costly; the loan cost becomes whatever the rate of increase in the stock account is plus the "loan spread." When a loan is taken, the security for it is in the fixed account, which itself earns whatever rate the insurer pays. That rate may be different for loaned and non-loaned funds. The fixed account might earn 5% annually, but if a loan is taken at a 6% loan rate, the fixed account might be changed to 4% for the portion backing the loan. In this example, the "spread" is 2%. If you borrow $10,000, it will have a net loan cost of $200 per year plus whatever the funds might have earned in a variable account.

Most insurers, to enhance sales, offer favorable loan spreads after the policy is held for, say, 10 years. Many of these feature a "wash loan:" the rate of interest on the loan is the same as the rate credited to the fixed account asset that serves as security for the loan. Few if any insurers will guarantee a zero net cost loan for fear that the IRS might deem them a sham. For those buying VUL's with the intent to take distributions later, it is obviously important to understand the loan terms.

Suppose your VUL has a loan for whatever reason. What are the implications?

? The first rule is that you should cease paying premiums and use the saved premiums to reduce the loan. Even if a wash loan, money applied to the loan is credited in full but a premium payment is subject to a premium load. Make no more premium payments once you have a loan. Pay down the loan with the premium money.

? Another implication is that a loan payment frees up money that can be allocated to a separate account. The owner could easily overlook this point, with favorable consequences if the market falls, unfavorable if it rises.

Some have warned those who buy VUL's as a tax-favored means of saving for retirement that if in retirement they take advantage of the /withdrawal loan features to strip the policy of most of its money, they may be subject to a "surrender squeeze." In order to realize most of the income tax advantages of any cash value policy, especially one bought at a relatively young age, the policy must be held until death. Otherwise, the policy is likely to have a taxable gain on surrender. (A policy bought at an older age may never develop a taxable gain because insurance costs may be larger than investment earnings.) If VUL's held for the future have returns anything like typical illustration rates of 8% to 10%, taxable gains on surrender before death can be very large indeed. If most of the money is stripped out of the policy by withdrawals, one may be tempted to surrender the policy, which could net very little cash with which to pay a very large tax bill. This is the "squeeze." As a practical matter, one in this situation is compelled to hold the policy until death, continuing to pay insurance charges and any loan spread for what could be many years. The risk is a real one, but it may be over-dramatized. The reason lies in the favorable federal rules that define the corridor of life insurance that one must carry into one's older retirement years. As noted in Section IV, by age 75 one may reduce the death benefit on many VUL's to just 105% of the Policy Value (before any loan). Thus, one subject to a surrender squeeze may minimize insurance costs by reducing the death benefit to a level just above the Policy Value. This action should make continuation of the policy until death much more attractive than a big tax bill on surrender. It does of course require one to understand all this and monitor his or her policy. And, it may cause those who need the higher death benefit some pain.

IX. What to do With an Unwanted VUL

Most of our policy reviews in the last two years have been from the "worried well:" policyowners who bought VUL's only to see large declines in policy values. We can think of only one case in which a client had received a notice that he must pay in more money, but that involved an atypical variable policy in which premiums were required to be paid if the policy value did not exceed total premiums paid; there was plenty of money in the policy otherwise. All the others were simply concerned about their purchases and wanted to know if their policies were worth keeping. The large majority was worth keeping due to the effects of the surrender charge (SC). Financial analysis often made it mandatory to hold until the end of the SC period, even if the owner wanted nothing to do with the stock market, ever.

It should be obvious to the reader that if one has a $10,000 SC decreasing $2,000 each year, keeping the policy in force another five years will gain $10,000, guaranteed. Sometimes the decrease in SC each year will more than cover all insurance charges, perhaps even the asset charges as well. Patterns by which SC's decline can be important, and any VUL owner should read his contract to understand her particular situation.

? If the SC declines evenly over a long period such as 15 years, keeping it may not be indicated.
? If the SC is more or less level for five years, then declines to zero in four or five more years, and if you have held the policy four or five years, odds are high that the policy must be kept.
? If the SC goes down once a year, and you are just a few months away from a policy anniversary, keep the policy at least to the anniversary. Conversely, if it goes down monthly, the timing of a surrender or transfer shouldn't matter.
? If the illustration shows that the Policy Value and the Surrender Value are equal after, say, 13 years, check to see if in fact the SC is zero one day after the end of policy year 12, as is often the case.

Because VUL premiums are flexible, it is often possible to "earn back" the SC over its remaining period without paying any more premiums. It is this sort of calculation that often makes holding a policy mandatory. Here is a bit of arithmetic that may help demonstrate why this is so. We use annual accounting for ease of explanation.

> Suppose your surrender value is $10,000, consisting of a Policy Value of $15,000 and a SC of $5,000 that declines $1,000/year. Further suppose your annual premium is $5,000. Assuming a 5% premium load and $900 in insurance charges, worth to you $600, the market cost of term life

insurance, your rate of return in the next year if your separate account grows just 2% gross, 0.5% net, is:

Investment at beg. of yr.	10,000 + .95*5,000 - 600 = 14,150
Investment at end of yr.	14,150 * 1.005 + 1,000 = 15,221
Rate of return	(15,221 – 14,150)/14,150 = 7.6%.

Now repeating the calculation but setting the premium equal to zero:

Investment at beg. of yr.	10,000 + 0 - 600 = 9,400
Investment at end of yr.	9,400 * 1.005 + 1,000 = 10,447
Rate of return	(10,447 – 9,400)/9,400 = 11.1%.

We see that omitting the premium increases your return substantially. Despite a poor performance from the separate account, you had a very nice return on your investment. This sort of analysis can mislead, however. It looks like paying the premium also offers a good return, but note that your $5,000 diminished to $4,774 by year's end. Still, better to pay the premium than surrender. Keep in mind that one may always insulate oneself from the market by switching all assets to the money market or fixed account. Also, spending the $5,000 to upgrade your car could be a worse investment.

In the analyses we do, a comparison is always made between retaining the policy and transferring to Ameritas's low-load VUL, whose software we have. Usually, the SC effect makes a switch unwise, but not always. If the options we explore suggest the policy isn't worth keeping, or if the owner doesn't wish to continue the policy, then an annuity transfer is recommended to recoup a portion of the tax loss in the policy.

The income tax laws that apply to any cash value life insurance policy are simple in concept: if you keep the policy until death, investment earnings over the policy's lifetime will escape income tax. If you surrender the policy, there will be a taxable gain at ordinary income rates, not capital gains rates, of the amount by which your surrender value exceeds aggregate premiums paid. (Care is needed in making this statement as loans and other withdrawals must be factored in; also, rider premiums providing benefits other than life insurance on the insured must be deducted from premiums.) If this calculation produces a taxable loss, it may not be deducted on your income tax return. Either gains or losses may be transferred to another life policy or to an annuity without current taxation if the exchange rules determined by the new insurer are followed. To say this another way, one's basis in the life contract may be carried over to a new life policy or to an annuity. If the new life policy is held until death, carrying over a gain will eliminate any income tax, but carrying over a loss will have no beneficial effect other than to lower any taxable gain on subsequent surrender.

A VUL holder should pay close attention to these tax rules. In present circumstances, virtually all our clients have taxable losses, some of impressive size. As indicated above, many VUL's should be held even if not wanted. But if a policyowner decides to surrender, it is foolish to do so without considering a transfer of the basis to an annuity, either fixed or variable. (Naturally, new life insurance should be in place before doing so.)

Suppose you've paid $20,000 in VUL premiums and have a surrender value of $10,000. Transfer the $10,000 to an annuity with a basis of $20,000 and future annuity earnings up to the $10,000 tax loss transferred will be free of income tax. For a taxpayer in a marginal tax bracket of 27%, over the time needed to earn $10,000 in the annuity, $2,700 in savings will be achieved. Annuity tax rules are similar to IRA rules: withdrawals are taxable to the extent of any gain in the contract, and if the withdrawal is taken before age 59.5, a 10% tax penalty applies to any taxable gain.

At least for the variable annuities we recommend, more money may be added to the annuity as time passes. This might be necessary if the transferred value is low in order that enough earnings are achieved in a reasonable time to offset the loss transferred. Transferring to a fixed annuity is more difficult since if it is to be a single premium deferred annuity, more money can't be added, and there may be a minimum purchase amount, such as $10,000, for a decent rate. Flexible premium annuities are lower yielding.

The variable annuity providers we recommend are TIAA-CREF (800-223-1200) and Vanguard (800-522-5555). Vanguard's minimum is $5,000, although we have been told that if less is transferred enough cash may be added to reach the minimum. TIAA-CREF has a $250 minimum. Both can get asset charges under 50 basis points; compare this to typical charges for variable annuities that exceed 200 basis points. TIAA-CREF provides a death benefit of the

higher of the account value or premiums paid. Vanguard has a choice of either the account value, the higher of the account value or premiums paid, or a ratcheted-up minimum death benefit; small extra asset charges apply to the last two options. If your instinct is to avoid separate accounts, a variable annuity may still make sense, depending on what the fixed account rate is. For someone in this situation, TIAA-CREF is likely the best route.

Unfortunately, if you have no surrender value because your surrender charge exceeds your Policy Value, you may not do a transfer. At least that's our understanding at this time; anyone affected in this way should nevertheless make inquiries. An available strategy would be to make a one-time VUL premium payment in an amount just enough to create a positive surrender value. This would take some analysis to determine if the loss of money in making the premium payment – premium load and the portion of the premium needed to get the surrender value to zero – can be offset by tax savings on future annuity earnings.

X. Which is Better: Variable Life or Term Life and a Mutual Fund?

In discussing this important question, we recognize that for many life insurance buyers this is an academic question: they need "permanent" life insurance for estate planning, to leave funds for children or others that will be free of income tax at their deaths, and for other reasons. (There has been a lot of supposedly "permanent life insurance sold in the last 15 years that did not prove to be permanent.) Term life insurance, particularly today's popular 20-year term policies and the like that escalate hugely in price at the end of the term period, will not work for such needs. Indeed, we assist an organization that helps parents provide lifetime financial assistance for disabled and autistic children; life insurance is critical in this planning, and we have yet to see a term policy. We know that even otherwise sensible life insurance company experts resist the notion of comparing cash value policies to term life. Yet, the comparison is a valid one because not every buyer's needs are thought of as permanent – those being sold tax-free distributions in retirement years often don't realize the need to keep the policies until death. Also, the analyst must have some means of comparing cash value policies to one another, something the life insurance business has fought mightily over many years, and it is necessary with an infinite variety of policy risk amounts and cash values to place a value on the risk amount; market term rates are certainly one way to do that.

We assume in this section that the buyer has exhausted all tax-reducing savings plans: 401-K's, 403-b's, tax-deductible IRA's, and the like, plans that reduce one's current income tax. We also think Roth IRA's should come before VUL's. Those with college planning goals may be better off saving via 529 plans, particularly low cost ones. Further, the buyer of a VUL should be prepared to hold the policy until death to avoid ordinary income taxes on surrender. An advantage of VUL separate accounts is that one can shift from one account to another free of income taxes that would apply to mutual fund transfers; an advantage of mutual funds is that long-term gains receive capital gains treatment.

We have seen no studies that accurately compare VUL's to the alternative of term life plus a mutual fund. The writer has performed long-term analyses comparing the following specific alternatives, each of which is low cost: (1) the purchase of a low-load Ameritas VUL, held until death, using Vanguard's very low cost, indexed stock separate account; and, (2) low cost term life with the difference between each year's VUL premium and the term premium invested in Vanguard's tax-managed, indexed stock fund. This comparison's results might also apply to a VUL purchased from a life insurance agent vs. a load-mutual fund purchased from a financial planner. The choice of the VUL is better if substantial withdrawals/loans are taken in retirement. This is so even though distributions from the mutual fund in retirement receive capital gains treatment. If distributions are not needed, and the mutual fund is held until death, thereby incurring taxes only on annual dividends and capital gains distributions (which by the nature of a tax-managed fund are minimized), the term plus mutual fund choice is better. There are many varied buying situations, however, and we caution readers that the comparison we made might not apply in a different set of circumstances.

Moreover, making assumptions about U.S. tax laws for decades into the future is of course potentially hazardous to one's financial health. Because of the need under current law to retain most cash value policies until death to escape income taxes, any attempt to draw conclusions about the wisdom of buying cash value life insurance must carry *caveats.* It appears to be the policy of the Republican Party to abolish capital gains taxes, and who is to say that will not be done. If it is, the conclusion in the preceding paragraph that a VUL is better when retirement distributions are taken might turn out to be wrong. Consider President Bush's policy to make permanent the elimination of federal estate taxes; a little known aspect of that program is that the step-up-in-basis for assets held until death would be eliminated. If this happens, the strategy of holding a mutual fund until death to escape capital gains taxes would turn out to be wrong. The longer we ponder these imponderables, the firmer we become in our insistence that buyers of cash value policies should keep their options open by buying only those policies that have reasonable sales charges, or by stciking to term

life insurance. In this way, losses may be minimized if personal circumstances change, if tax laws change, or if other changes in the economy occur that we can't imagine now.

A related question is whether a VUL is better than term life insurance plus a variable annuity. Many variable annuities are extraordinarily expensive, and any gains become taxable when distributions are taken and at death. Our judgement is that a VUL should be preferred to term plus a variable annuity, even if the variable annuity is reasonably priced.

Do not believe any comparisons between VUL's and external investments offered by life insurance agents, even on home office-supported software. You need to be expert to tell if they are flawed. There are three ways in which a "buy term and invest the difference (BTID)" comparison may be skewed: (a) term rates chosen may not be competitive; (b) death benefits of the alternatives may not be made equal; and, (c) unrealistic taxes may be assessed against the external fund, often called the Side Fund. This last point is most troublesome. The example in front of us at the moment assumes that a buyer in a 45% tax bracket (perhaps resident where city and state income tax are levied) can earn 10% in a Side Fund or 10% in a VUL. Curiously, the Side Fund is assumed to incur no expenses in earning 10% while normal VUL asset charges apply to the VUL. This assumption, which favors BTID, is overwhelmed by further assuming that a 45% tax rate applies to the Side Fund's annual income. But the only reasonable way to earn 10% returns is to have something approaching 100% invested in common stocks, which at the time of the illustration were yielding about 1% in annual dividend income. The Side Fund, then, should have had taxes deducted at just 10% of the deductions actually assumed (or maybe a bit more to account for capital gains distributions from a mutual fund).

When supplemental illustrations are added to basic illustrations to make BTID comparisons for a VUL, one must be wary. Basic illustrations that are used to support sales, which we use in evaluating VUL policies, are reasonably indicative of what will happen to a policy under the illustration assumptions. That is not to say that they are always forthcoming. For example, a disability rider is often included in the illustration, yet its costs are rarely unbundled. Prudential has an extraordinarily expensive disability rider, whose cost is not identified in its illustrations of in-force variable policies. Nor are current cost of insurance rates usually revealed; IDS (American Express) is a prominent exception in some of its illustrations. Supplemental illustrations, particularly if cooked up by agents, merit maximum skepticism.

XI. How to Buy a VUL Efficiently

The easy way to save money on a VUL is to buy it from an insurer that deals direct with the public; this saves what are frequently huge commissions. Low-load insurers include Ameritas (800-552-3553), USAA Life (800-531-8000) and TIAA-CREF (800-223-1200). Our favorite has been Ameritas, in part because it makes available the very low-cost Vanguard separate accounts and in part because its policy design minimizes costs in the early years, thus allowing buyers to change their minds about their purchases at minimum cost. Neither USAA nor Ameritas offers its VUL in New York, however; TIAA-CREF would be the choice there. TIAA-CREF is new to VUL's, and its policies are not available in every state in early 2003. Its asset charges are very low, so those wishing to use a VUL primarily for tax-advantaged investing will probably find TIAA best.

Although they pay no agents' commissions, each of the low-load organizations noted has sales costs in the form of trained agents who answer the telephone, explain the product, prepare illustrations and so forth. It does not follow necessarily that in all cases a low-load insurer will be lower in cost than an efficient insurer selling through commissioned agents, but the buyer would need to be expert in his choices to find such an insurer and knowledgeable about how to negotiate reasonable commissions. When shopping for a VUL, follow these rules:

- Decide on the amount of the premium you would like to pay and how frequently.
- Decide on the amount of insurance you would like to have and whether Option A or Option B. In seeking to maximize the tax-advantaged investment aspects of a policy, (a) ask for the lowest Option B insurance amount that is not a Modified Endowment Contract (MEC) and (b) ask that Option A be used beginning in policy year 8.
- Eliminate any riders such as disability protection, protection of children, or spouse coverage; these can be added later, although only the disability rider would be recommended by us. A term life rider on the insured person can be effective in lowering commission cost, but we have seen very expensive term riders, and caution is indicated.

- ? Request an illustration at some hypothetical gross earnings rate, such as 8%. Specify that you would like the illustration to assume that 100% of your investment allocations be in the lowest cost, index account even if later you intend a different selection.
- ? Compare the columns of cash **surrender** values among competing illustrations. In general, the higher the surrender values the better the policy.

There are three main elements in a cash value life insurance policy: death benefit, premium, and cash surrender values. By fixing two of the three, death benefits and premiums, apples-to-apples comparisons may be made by comparing the third. While not irrelevant, we would avoid being lured into focussing unduly on other aspects of a VUL, such as death benefit guarantees and low-cost policy loans. Minimizing or avoiding high commissions will leave more money in the policy to absorb market declines. A zero net cost loan feature will have some administrative costs for the insurer, so you will have to pay for that one way or another.

The term Modified Endowment Contract (MEC) is from federal legislation that limits how much cash can be sheltered in a life insurance policy. If premiums for a particular set of buyer specifications exceed the MEC limit, any loans or withdrawals, even loans from a bank holding the policy as collateral, will be taxable as ordinary income to the extent of any gain in the contract. Most buyers will wish to retain the "tax-free income" aspects of a VUL by avoiding a MEC; it would be highly irregular for any salesperson to sell a MEC without making clear it is such. There is a higher premium limit for MEC's that defines what qualifies for the distributional tax advantages of a life insurance policy. If no distributions are ever taken from a MEC, it is treated for tax purposes the same as a non-MEC.

Requesting the minimum Option B Specified Amount is not particularly important in buying a low-load policy, especially if the buyer is a young nonsmoker, but it can be critical in securing a reasonably priced VUL from a commissioned agent. The reason is that commissions are scaled to VUL face amounts. If cash value life insurance operated in a world of knowledgeable buyers, one would expect percentage commissions to decrease with increasing amounts sold. That is almost never the case in buying any cash value life policy. As a result, the agent wants to sell you as much as she or he can. One way to do that is to appeal to the vanity of a prospect: Don't sell yourself short; you're worth at least $1,000,000. Buying high face amounts not only will affect long-term performance, but will:

- ? lock you into the contract more securely by making surrender more costly;
- ? provide lower borrowing values in emergencies;
- ? potentially block an annuity transfer if you want to surrender; and,
- ? threaten your contract with snowballing insurance charges should you have chosen Option A and persistent bad markets lower the Policy Value, in turn raising amounts at risk and risk charges.

While a term rider will lower sales charges, one needs to determine if the term rates are reasonable. A recent VUL we reviewed was from Equitable Variable Life (EVLICO) – a policy in its 4th year with a $900,000 Specified Amount and a $600,000 yearly renewable term (YRT) rider (level death benefit, rising premiums with age). The insured, age 51, had been rated as a "preferred nonsmoker," or PNS, at issue, EVLICO's best class. We advised him as follows:

> If your health is perfect (preferred plus nonsmoker), you could pay about 40% of [EVLICO's YRT rates] if you bought a separate term life policy. If just a preferred risk, premiums would be about 50% [of EVLICO's.] Or, you could buy a 10-year guaranteed **level** premium policy for about $92/mo [compared to $157/month currently, increasing each year].

We have stressed that one should buy a VUL only if the intention is to keep it until death; otherwise, surrender may bring a large taxable gain. Yet well-intentioned buyers will nonetheless surrender their policies later on. A not well understood tax-advantage of any cash value life insurance policy that is surrendered with a taxable gain is that the insurance costs over the years reduce the taxable gain. As noted earlier, buy term and a mutual fund and you can't deduct term life premiums from any gain on the sale of the mutual fund. Other things equal, then, it is better to have "term insurance" inside your cash value policy or attached as a rider than to buy it as a separate policy. (Insurance costs for older buyers or for those who smoke or are rated up based on medical history may be high enough to eliminate taxable gains on surrender.) Accordingly, if there is just a small difference in VUL insurance costs and those in an outside term policy, it may be better to buy the higher VUL face amount. Frequently, however, the internal costs are high enough to make an outside term policy the better choice.

We said above that VUL (or WL or UL) commission percentages do not scale down as the face amount increases. On the other hand, for a given face amount commission percentages do scale down if one pays a high enough premium. The portion of the premium in excess of a "Target Premium" will carry a lower commission rate, usually much lower. (WL works in a similar way, but without the nomenclature.) The example in Section VII illustrates this point and leads to the possibility of staggering annual premiums to gain lower commission charges. Instead of paying five annual premiums, one might pay all five at once, or as much as the MEC limits would permit.

Target premiums are sometimes stated in sales illustrations. Caution is advised, however, if you have an existing policy with a substantial cash value and an agent proposes to replace it with a "single premium" VUL. Recently an agent sent us such a case, asking in effect for our blessing on the transaction. The original policy was a Merrill Lynch true single premium policy issued before MEC limits applied and bought by a man who did not understand he had to keep the policy until death to avoid a large income tax on prior surrender. He had taken a large loan against the policy to get needed cash, and the loan spread was .75%. The new insurer was willing to carry over the loan as a tax-free transfer to a new policy, which featured a .25% loan spread. Because the individual was in excellent health, cost of insurance rates were lower. But the new policy was not a single premium variable policy; it was an annual premium VUL with normal premium loads and surrender charges that was illustrated with one payment, the transferred amount. While the amount transferred exceeded the target premium, so first year commissions applied only to a portion of the transferred amount, the insured nonetheless lost $40,000 in net cash value in the transfer. Far higher commissions were paid than apply to true single premium policies. Perhaps the policyowner will recover his loss over future years to his death, but there were better solutions.

Finally, if your goal in buying a VUL is to maximize the investment advantages, consider a second-to-die (survivorship) policy, covering husband and wife for example. Cost of insurance rates in the early policy years can be very low, even for a retired couple, since the chance that both will die is typically close to zero for several years. Conversely, if a survivorship policy is inadequately funded in the long term, COI rates at advanced ages will be higher than single life rates and the policy could come apart quickly. It is always good practice to monitor the performance of a VUL, or indeed any policy, being ready to decrease the face amount or put more money in the policy.

XII. CFA's Rate of Return (ROR) Analysis

The writer has been analyzing cash value life insurance policies since 1984 using a technique that resembles the numerical example in Section IX. It is a "buy term and invest the difference" comparison called a Linton Yield analysis after actuary M. Albert Linton, who in the 1920's developed it to demonstrate the investment merits of whole life policies. In our work, we state that the comparison is not necessarily a recommendation to buy term insurance; instead, it is a means of analyzing dissimilar cash value policies. When the technique is applied to VUL's, one may reasonably rely on the mortality charges and expense charges built into a "current illustration," but of course the future investment returns are unknowable. (When WL and UL illustrations are analyzed, we assume the current interest rate stated for a UL or implicit in a WL dividend scale will continue for the years analyzed. Appropriate warnings are given that these rates are subject to change). Consequently, we use an illustration based on a hypothetical gross earnings rate requested by the policyowner or provided in a sales illustration. If that rate is 8%, say, then the Linton Yield analysis derives "true" rates of return for various holding periods. (The word "true" is in quotation marks to distinguish it from the hypothetical rate and because it is an estimate determined by an assumption about what term life costs.) Here is the picture for a full commission, $1 million MET Life VUL we reviewed recently for a prospective buyer.

Hypothetical Gross Investment Return Illustrated: 10%

Holding Period	Linton Yield	Spread
5 Years	-2.0 %	12.0 %
10 Years	5.5	4.5
15 Years	6.9	3.1
20 Years	7.4	2.6

The "spread" is the difference between the gross return illustrated, 10%, and the derived Linton Yield, or ROR. It is a measure of costs attributable to premium loads, asset charges for investment management and mortality and expense risks (largely profit), and cost of insurance rates that exceed those in market term rates. ROR's for five and ten years in

this MET Life example are depressed by a 15-year surrender charge period. We should observe that MET Life's VUL appears to have somewhat lower than average charges.

For perspective, compare the spreads, which are intended to be a measure of the cost of a VUL, to Vanguard's tax-efficient mutual funds or indexed equity funds with annual charges under .2% (2/10ths of 1% percent). Clearly, one needs to hold a full-commission VUL a very long time, in most cases to death to avoid income taxes on prior surrender, to enjoy a return comparable to or better than buying low cost term life and mutual funds.

Appendix A shows spreads for VUL analyses we have done in the last year or so. Spreads depend on a number of factors. In particular, they are much lower for existing policies, especially when the declining surrender charge boosts returns over the remaining surrender charge period. In the MET example above, the ROR for policy years 2-15 (through the surrender period) is 8.2%, a relatively narrow spread of 1.8%. That for policy years 3-5, a short period of very large decreases in the surrender charge, is 12.7%, a negative spread of 2.7%, suggesting it could be a serious error to surrender after 2 years. Spreads will be narrower when premiums are high in relation to the insurance amount, and vice versa. They will be high when the policy is relatively small face amount, say under $200,000.

We use a rule of thumb, which has frequent exceptions, that if the spread is 2% or less, the policy is worth keeping.

XIII. Case Studies

The following accounts of some of our analyses of VUL's during the last year or so may be instructive. Assume, where relevant, that new life insurance replaced terminated policies and that warnings were given about the suicide and contestable clauses in a new policy.

1. Mr. and Mrs. C, a young couple, had purchased three VUL's on themselves and on a child. The issue date was roughly as the stock market was peaking. About $10,000 had been added at issue to each policy in addition to the regular premium. The insurer was Western Reserve Life, a higher cost insurer based on this couple's policies and two or three others we have reviewed. There was a substantial surrender charge on each policy, but also a significant net cash value (surrender value) remaining due to the extra first year premiums. Current illustrations were obtained assuming no more premiums; these showed that under reasonable earnings assumptions, the policies would remain in force through the surrender charge period. Our analyses showed returns through that period significantly higher than the gross interest rates used in the illustrations. The C's therefore decided to retain the policies, paying no more premiums, in order to recapture the surrender charges at minimum cost. They were warned to monitor the policies, that additional premium payments could become necessary if markets continued to worsen.

   A collateral lesson is never to buy cash value life insurance on children. The costs in our opinion are disproportionate to any benefits.

2. Mr. M., age 42, had purchased a $500,000 IDS (American Express) VUL nearly four years prior to asking for an evaluation. He had become worried about his policy and about his ability to pay premiums. His agent had shown that he could immediately reduce the face amount to $375,000, then to $300,000 eight years later, without a pro rata surrender charge (an unusual contractual right), in which case he could reduce his premiums to $375/mo. She had prepared an illustration on this revised basis, and our analysis of it indicated a very low spread of just 0.4% over the remainder of the surrender charge period. Explaining that if he stopped premiums, the returns would even be higher on his existing net cash value, he responded that his agent had said premiums must be $375/mo. We in turn pointed out that this level of premiums was required to guarantee the death benefit to age 70, that as long as he kept a positive cash value the policy would not lapse. Feeling that he could efficiently invest the saved monthly premiums elsewhere, he decide to stop premiums entirely and keep the policy until the surrender charge is zero.

3. Dr. D. came to us with the following tale. "I have had a $100,000 Northwestern Mutual Life policy since 1996. [A year ago,] the agent persuaded me to increase it . . . [to $1 million].

[An] agent from New York Life . . . told me his product was superior, and in the long run I would clearly benefit [from buying it instead.] I wrote him a check for approximately $13,000 for the whole year's premium [a month ago]. I have kept the $100,000 NML policy active [and have a week to decide whether to cancel my request to drop the $900,000 addition.] I have had the Provident Mutual VUL for approximately 5 years for $900,000 . . . [Nine months ago] the New England insurance agent . . . told me his [VUL] was superior, and he recommended that I switch to his product and that I be insured for $2,000,000. [The Provident Mutual agent then said his $2 million policy VUL was better if I switched my existing policy to it.] To further compound things, the New York Life (NYL) agent stated categorically that his VUL was the best . . . I have no way of knowing which agents' policies are best, which is why I wanted your help."

This convoluted story illustrates (a) that doctors are favorite life insurance targets and (b) that some agents will say anything to drum up business. There was no way a NYL policy could be better than a year-old Northwestern Mutual (NML) policy on which first year commissions and start-up costs had been paid. When the NYL agent was asked how his policy could be better, he replied that the loan costs were lower; but loans, if ever taken, were decades in the future, and loan costs were lower only because current NML investment returns were higher – NML loan costs are a function of its current earnings. In other words, take a lower investment return for 20 years, then borrow at a lower loan rate, maybe.

Similarly, a New England Life (NEL) new VUL could hardly be better than a five-year old VUL that contained a declining surrender charge. Dr. D was asked if the NEL agent claimed superior investment management results, which if proved true in the future could make a superior policy, but the answer was negative. The Provident agent's illustration was arguably a bit better than NEL's, but could have been clearly better if Dr. D had increased his existing policy rather than switch to a new one. (Perhaps the agent had that in mind but was using available software to make a point.) The mess was resolved by Dr. D retaining his NML and existing Provident while canceling the NYL (under the money-back free look provision) and the NEL. It was better to take a loss on the NEL and switch to Ameritas than continue the NEL, the main reason being renewal commissions paid by NEL.

4. A fee-only financial planner sent us three Prudential variable policies, two on a husband, one on his wife. The 14-year old PRU showed mediocre returns for the next several years, then very good returns; an inquiry of a PRU actuary indicated that after year 20 a "terminal dividend" is payable and that COI rates are lowered. A terminal dividend is an extra amount paid on death or surrender. The recent PRU policies were toss-ups. One had a loan, the cost of which was evident in our analysis; we recommended it be paid off before any further premiums were paid. We suggested that the premiums being paid on one or both of the newer policies, if terminated, could be added to one of the others to make it more efficient. Our understanding is that the couple transferred both recent policies (after paying off the loan) to annuities in hopes of recouping some of the tax loss. Saved future premiums are to be invested in some form of tax-advantaged account or in the annuities.

5. Mrs D. sent a current illustration for a 3-year old, $250,000 IDS (American Express) VUL and second illustration showing an increase of the existing policy to $500,000. She wrote, "Our financial advisor has just completed a financial plan/review for us and has recommended an increase of $250,000 for my husband, using the VUL. He states that the plan would provide for our daughter's education and a portion of our retirement funds by taking tax-free loans from the policy. Frankly, I am skeptical . . . [and we have $500,000 of low cost term life.]" Due to the surrender charge pattern, the existing policy was well worth keeping. Mrs. D accepted our suggestion that the proposed premium increase be added to the existing policy unless they identified better alternatives such as a Roth IRA, a 529 Plan, or increased 401-K contributions. An increase in the policy's face amount (Specified Amount) is tantamount to buying a new policy, although there are some savings. Higher premiums paid into the existing $250,000 level death benefit policy reduce risk amounts, for which cost of insurance charges were high.

6. Mr. P sent us illustrations for his and his wife's identical Nationwide VUL's just entering policy year 2. Sometimes after paying a year's premium or less it makes financial sense to shift to a low-load VUL, despite a surrender charge, especially if the tax loss is converted to an annuity. In this case, the size of the premiums, when combined with existing surrender charges and relatively low M&E charges in excess of $25,000 of Policy Value, led us to suggest that the two premiums be combined in one policy, so as to build up to the lower M&E charge threshold faster. We do not know if this was done.

7. Dr. R. D., age 44, asked us to review his $3 million EVLICO VUL for which he had paid a $50,000 first premium, which he intended to continue paying for 15 years. The illustration assumed 12% annual earnings and showed annual distributions of $273,000 from age 65 to age 85. At that age, the illustration showed $780,000 in cash value; the taxable gain on surrender then, which the illustration did not show, was calculated to be about $4.75 million, illustrating how a taxable gain can exceed the cash available to pay the tax on it. As the first year surrender charge was nearly $25,000, it was a toss-up whether to shift to Ameritas. The internal cost of insurance (COI) rates were 3.8 times what term life could have cost – term rates for $1 million and up are very low for the very healthy. After an amusing "Customer Loyalty Credit" in policy year 7, EVLICO's COI rates were lowered to 3.6 times the same schedule of term rates. (In the analysis we used TIAA's $1 million preferred *plus* class rates in our analysis. Dr. D had received preferred nonsmoker rates from EVLICO, its lowest class. The multiples would have been 2.9 and 2.7 had TIAA's preferred class rates been used.) The illustration footnotes revealed investment management fees of 76 basis points for the selected separate account (plus 60 basis points for M&E) of which 30 BP's were for "other expenses (including 12b-1 fees)." We understand this means that the separate account manager would refund to EVLICO perhaps 25 basis points each year.

   Dr. R.D. was in a difficult position. We said that whatever he did – keep the policy, transfer to Ameritas, or transfer his loss to an annuity -- would not be wrong. That is, if he terminated the policy, then decided it was a mistake to do so, he could buy a low-load policy without significant extra cost. This assumed that the lost life insurance was replaced with Ameritas term life, which is convertible without evidence of insurability to its low-load VUL. It further assumed the market did not move against him during the interim.

8. Mr. B., age 58, had a 7-year old, $150,000 John Hancock VUL for which he was paying $243/month. Despite a boost from a declining surrender charge, the derived rate of return was just 4% over 20 future years based on an 8% gross illustration rate. The spread of 4%, higher for shorter holding periods, suggested a poor policy that should be given up or transferred. Although the policy had been issued in the preferred nonsmoker class, COI rates were high, and premium loads appeared to exceed 8%. A lesson here is that the older one is, the greater the chance that the policy may be productively replaced by another *if the insured remains in excellent health.* We noted that had Mr. B chosen a managed separate account costing 73 basis points a year. We suggested that if he kept the policy he could manage his own account by mimicking the allocations between bonds and stocks in index funds available for each, which would have reduced asset charges by 50 basis points.

9. Mr and Mrs. D had three EVLICO VUL's (we are not picking on EVLICO; it probably has more variable life policies in force than any insurer). Two were about 10 years old – one for each of them – but one of them had a loan. The one without the loan had a relatively low spread – about 1.5%. The 5-year old VUL on the husband did not evaluate well. We suggested canceling the newer policy, using the proceeds to pay off the loan, and using saved future premiums to add to either of the two policies retained.

10. Mr. E bought an ING/Reliastar $1.1 million VUL intending to pay $2,084/month in premiums. After paying six months he began to have "second thoughts" and sought our assistance. He wrote as follows, "I am single without dependents . . . the beneficiary is my estate. The policy was pushed as a way to limit taxes with the understanding that the death

benefit was secondary." We showed him how he could transfer to Ameritas, taking a loss of nearly $12,000, and for the same premiums, death benefit and asset charges have $80,000 more in cash value after 15 years, when the ING surrender charge reached zero. Further savings could be achieved by using Ameritas's Vanguard index accounts and by stipulating a minimum initial Option B benefit, not a MEC, as his ING agent should have done if he didn't have his eye on commissions.

11. Mr. M.B. had held a Pacific Life VUL more than three years. At age 42, he was paying about $5,000/year for a $250,000 policy. Prospective ROR's in the long run narrowly justified keeping the policy. A Primerica agent had recommended he give up the policy, buy the agent's 20-year term policy, and put the Pacific Life surrender value in a Primerica variable annuity. Primerica sells high priced term life insurance coupled with high cost variable annuities. In this case, the Primerica term rates were about double what could be secured in the market with a bit of shopping. We said that holding the Pacific Life policy would be far better than the proposed course of action, that replacing a VUL with term plus a variable annuity, even if the term were reasonably priced, was irresponsible in light of the substantial tax differences between a VUL and a variable annuity. A VUL held until death will be free of taxable income, but a variable annuity's gains will be fully taxable someday to somebody. We also pointed out that Pacific Life is a mutual insurer, and that if it chose to demutualize, as have John Hancock, Met Life, Prudential and others, he would receive free shares in the reorganized company.

12. In late 2000, Dr. C owned an 8-year old, $6 million Massachusetts Mutual (MML) second-to-die whole life policy with a cash value of $183,000. A Northwestern Mutual agent proposed that he transfer it to a VUL. The annual premium was $26,000, so the total investment in the new policy would have been $209,000. Assuming 10% market growth, his first year surrender value would have been $153,000. But his MML would have grown without market risk at nearly 8%, and after a year would have had a cash value of about $224,000. The replacement alone would have left him $71,000 in the hole hoping to catch up in future years. At this writing, the S&P 500 average is down about 35% over the last two years. Meanwhile, the Mass Mutual policy grew another 8% in 2002. Overall, Dr. C saved somewhere in the neighborhood of $160,000 by not making the change. Was it simply the luck of the market that produced this result? Not entirely. The Mass Mutual policy's returns in policy years 9 and 10 were higher than normal, a not unusual observation in a rate of return analysis. Dr. C's choice was either (a) to retain an existing policy with a prospective return of nearly 8% in each of the next two years, 6.8% over the next 20 years, based on the 2000 dividend scale, or (b) to shift to a VUL with a large negative return in the next two years, 7.1% over the next 20 years in the new company if the separate accounts earned 10%. With this picture, he concluded that the VUL's risk/reward ratio was too far out of line. In late 2002 the picture has reversed: the stock market is much lower and so are his returns from his Mass Mutual policy in years 11 and later: Dr. C. is thinking about transferring to a low-load VUL.

    Many existing WL life policies have prospective returns that are quite high. This is especially true of WL policies in mutual insurers or former mutual insurers, if bought before demutualization. UL policies sometimes have high returns for a few years that result from a pattern of declining surrender charges. Ideally, any buyer whose agent recommends replacing a WL or UL policy with a VUL, a big business in the late 1990's and early 2000's, should be given some sense of what prospective returns must be earned by the VUL to match those implicit in the WL or UL. But of course this information is not available.

13. Mrs. L. explained that she and her husband had bought her VUL "to have life insurance and a way to save money for college, supposedly tax free and not counted when applying for financial aid. We were going to drop the policy after the kids are through school." We urged the policy be kept at least until the end of the surrender charge period and pointed out that if the illustration's 10% earnings assumption predicted the future accurately, there would be a $30,000 taxable gain after the children were through college. We wondered if the agent in

describing the policy's tax advantages "forgot" to explain how a VUL policy is taxed if it is not held until death.

14. Mr. and Mrs. S had a MET Life VUL and WL policy, respectively, each three months into the 3rd policy year. We said his policy was worth keeping for the long run, but that in particular a disproportionately large, 3rd year decrease in the surrender charge made it mandatory to keep it at least another nine months. His wife's policy was especially valuable, a Life Paid-up at 98 WL form with an estimated return based on the 2002 dividend scale of 8.5% for policy years 4 to 20. We suggested she might drop the accidental benefit rider and pointed out that she should switch from paying monthly premiums to paying annual, as MET's charges to pay other than annually are extraordinarily high. Paying MET WL premiums monthly is like charging an annual premium on a 17% A.P.R credit card.

15. Dr. W had bought a full-commission Northwestern Mutual Life VUL paying $40,000 premiums. We observed that after five years he was $50,000 poorer, that this was money he would not recover, but that he must keep the policy now. He had a loan against the policy, and we pointed out how the VUL loan had insulated him from the falling market on the portion of his cash value that had been borrowed.

16. Dr. B, a young physician, had bought a $2 million Allmerica policy more or less at the top of the stock market. She had paid $35,000 in premiums when she sought our help not long after September 11, 2001. At that point, she had a $28,000 surrender charge and a $21,000 Policy Value. Had she surrendered, Allmerica would have absorbed the $7,000 loss, probably charging it against the M&E reserve. Given that the market fell further into 2002, perhaps surrender would have been a wise decision. But we urged her to hang on for these reasons: (1) she had $28,000 invested in stocks by keeping the policy, whereas had she surrendered she would have had nothing invested; (2) the annual surrender charge decrease over the next 12+ years exceeded by a significant margin the excess of internal insurance costs over market term rates, making her insurance nearly free for this period; and (3) she had no surrender value and could not transfer her $14,000 tax loss to an annuity.

17. Mr. M, age 51, bought a $500,000 VUL from Lincoln National Life (LNL) 10 years ago at age 41, at which time he was classified as a "preferred nonsmoker," likely LNL's best class. Despite a $3,000 surrender charge that was going down about $500 per year, thereby helping to pay insurance charges, it was clear that if Mr. M remained in good health the policy was not worth keeping. We recommended a transfer to Ameritas. In explaining why the LNL policy was so expensive, we estimated the costs of insurance (COI) rates for age 52, his next policy year, at $4.40/$1,000/year. Looking at a data base of rates for Yearly Renewable Term (YRT), the counterpart of a VUL's COI rates, the lowest rate we found for a preferred nonsmoker was $1.34/$1,000/year; had Mr. M been in the super-preferred class, the lowest rate would have been $1.12/$1,000/year. (For technical readers, we chose the rate for the lowest cost life insurer we found, National Life of Vermont, ranked by discounting 20 years' rates at 4%; i.e., we did not choose the lowest first year rate of all insurers in the data base.) It is hard to believe LNL needed to charge this much because of adverse mortality experience from a ten-year old block of young, preferred nonsmoker risks. More likely, it needed to maximize returns for its stockholders. In a mutual insurer, owned by its policyholders, gains from constantly improving mortality rates insurers have experienced for decades are passed through to policyholders in the form of lower COI rates. A shareholder-owned insurer has little incentive to do so, and we have not observed it being done, nor heard of it.

18. Mr. T, age 35, bought a Western Reserve Life (WRL) VUL in June 2000. He had paid $14,700 in premiums by late 2002, had an invested value of $6,500 and a surrender value of $1,500. The surrender charge of $5,000 will rise to $7,100 over the next 7.5 years, then will decline to zero five years later. (The reader may wish to reflect on a surrender charge that increases during the first ten years.) It was rather obvious that Mr. T should either quit immediately, possibly transferring the loss to an annuity, or keep the policy for another 12.5 years. A transfer to a low-load VUL would not have worked; while more efficient, the $5,000

surrender charge could not be overcome in that time. In talking with Mr. T, we showed how leveraged his surrender value is: "Your net surrender value (NSV) at 11/20 was about $1,500, and the surrender charge was about $5,000, so your so-called cash value (CV) was about $6,500. It is the latter that is invested in one or more investment accounts. Suppose the market goes up 10%; your CV is now $7,150. The SC remains roughly the same so now your NSV is $2,150 (7150 - 5000). Thus, what you could get your hands on by surrendering or by borrowing has increased from $1,500 to $2,150, or by 43%. Of course this leverage effect works in reverse. If the market goes down 10%, your NSV becomes $850, down 43%; if the market goes down 25%, the NSF becomes negative, and the policy may lapse without additional premiums or if there is no death benefit guarantee." Last we heard, Mr. T thought it best to continue dollar cost averaging through the stock market declines, given his age and long term stock market prospects.

This example reminds us of the care needed in making recommendations about surrendering a contract. Even the time needed to transfer to an annuity or another policy could result in missing a market surge. Accordingly, it is probably best when a decision is made to transfer to another insurer to shift invested assets into the fixed account or money market account.

As noted previously, we do not advise on specific VUL investment choices. But we do stress whenever appropriate that any investment strategy should incorporate the notion of "dollar cost averaging." In this way, a periodic (monthly?) investment of a more or less constant dollar amount, which is certainly typical in most VUL situations, will purchase more separate account shares when the market is low and fewer when it is high. As a VUL must be held decades to be an efficient investment, an owner is better off thinking about how his premiums are buying cheaper shares in separate accounts than becoming alarmed at market collapses, especially if there is a large surrender charge and a death benefit guarantee. Human nature being what it is, we suspect that those terminating VUL's in the last two years are those with most to gain by staying the course.

XIV. Conclusion and Recommendations

This document was prepared both as a resource for prospective buyers and current owners of VUL's and as an aid to financial advisers. Nothing is more obvious from the preceding sections than that VUL's are complex instruments. Trying to give sound, understandable advice to VUL owners who bought their policies in recent years is especially difficult. The following guidelines may help, but almost every generalization needs amplification.

- ? VUL's tend to be expensive.
- ? Do not buy a VUL if you have not taken full advantage of 401-K's and similar plans that reduce current taxes. A Roth IRA should be preferred to a VUL.
- ? A policy in a low-load insurer gives better value, although differences can narrow when a reduced commission policy is held at least 20 years.
- ? When held for life, especially when used for tax-free income in retirement, a VUL can be a successful investment.
- ? Avoid huge commissions. Never buy a VUL that has a zero cash surrender value after one year. With rare exceptions, the higher the first year surrender value as a percentage of the first premium, the better the investment.
- ? For a buyer who does not need life insurance in later post-retirement years, an alternative plan involving term life and low cost mutual funds, especially funds, may be worth consideration.
- ? A VUL that is more than a year old is usually worth keeping.
- ? A VUL should be better than term life insurance plus a variable annuity.
- ? A VUL should never be surrendered without considering an annuity transfer.
- ? A VUL owner needs to familiarize him or herself with how the investment works. We see too many set-ups that raise questions about the recommendations of those selling the policies.

Is the purchase of a VUL policy worth it? Yes, if one takes the time to understand how the policy works and is confident of his or her ability to hold the policy until death. Those who are unable or unwilling to invest the time to become reasonably familiar with VUL's should probably stay away from them.

Appendix A

Variable Universal Life ROR Summary

(1) Client Names Omitted	(2) Age(s)	(3) Insurer	(4) Years Pol-icy Held	(5) Illustated Gross Investment Return	(6) Estimated "True" Investment Return	(7) Spread in Percentage Points (5) - (6)	(8) Future Years Eval-uated
[Last to Die]	72/73	Hartford	6	9.00 %	9.1 %	-0.1 %	10
	42	IDS/AMEX	4	9.00	8.6	0.4	7
	33	MET	1	10.00	7.8	2.2	15
	27	New England	0	10.00	3.8	6.2	10
			0	10.00	6.5	3.5	20
	40	PRU	0	10.00	4.5	5.5	10
			2	10.00	7.1	2.9	8
	40	PRU	14	8.00	5.1	2.9	5
			14	8.00	6.1	1.9	10
	46	John Hancock	15	10.00	5.9	4.1	10
	36	Nationwide	1	10.00	7.9	2.1	10
	48	C M Life	3	11.25	8.4	2.9	10
	44	EVLICO	0	12.00	9.1	2.9	20
			1	12.00	9.7	2.3	19
	39	IDS/AMEX	1	10.00	8.7	1.3	9
			10	10.00	8.1	1.9	10
	31	EVLICO	2	6.00	3.4	2.6	14
	34	Ameritas	0	10.00	7.7	2.3	10
			0	10.00	8.4	1.6	20
[Last to Die]	40/36	Lincoln Ben.	0	8.80	-5.9	14.7	10
			0	8.80	4.3	4.5	20
			0	8.80	5.8	3.0	30
	38	EVLICO	10	8.00	6.5	1.5	15
		EVLICO	5	8.00	4.6	3.4	15
	36	EVLICO	9	8.00	6.1	1.9	15
	36	Ohio Natl	0	10.00	4.2	5.8	10
			0	10.00	7.4	2.6	20
		Northwestern	0	10.00	6.5	3.5	10
			0	10.00	8.0	2.0	20
	59	John Hancock	19	8.00	4.2	3.8	10
		John Hancock	7	8.00	3.7	4.3	10
			7	8.00	4.2	3.8	20
	45	Pacific Life	3	7.00	4.8	2.2	20
	51	ING/Reliastar	0	10.00	-11.0	21.0	5
			0	10.00	3.0	7.0	10
			0	10.00	6.2	3.8	20
	37	EVLICO	8	10.00	7.6	2.4	10
	28	EVLICO	3	10.00	7.3	2.7	10
			3	10.00	8.2	1.8	20
	40	Northwestern	4	12.00	10.4	1.6	14
	69	Hartford	3	11.00	10.4	0.6	10
	42	Pacific Life	3	11.20	9.1	2.1	17

Appendix A

Variable Universal Life ROR Summary

58	Allmerica	5	10.00	8.5	1.5	3
		5	10.00	7.9	2.1	15
59	EVLICO	10	12.00	6.4	5.6	10
		10	12.00	7.0	5.0	15
47	Hartford	0	9.00	2.9	6.1	10
		0	9.00	5.9	3.1	20
36	Northwestern	0	12.00	7.9	4.1	10
		0	12.00	9.9	2.1	20
36	IDS/AMEX	0	9.75	5.2	4.6	10
		0	9.75	6.6	3.2	20
44	Northwestern	12	12.00	11.2	0.8	10
		4	12.00	10.1	1.9	10
		4	12.00	10.5	1.5	19
		4	6.00	3.9	2.1	10
		4	6.00	4.3	1.7	19
42	Allmerica	8	10.00	8.9	1.1	7
46	New York Life	0	10.00	3.4	6.6	10
		0	10.00	6.0	4.0	20
	USAA	0	8.00	3.8	4.2	10
		0	8.00	4.6	3.4	20
	Ameritas	0	10.00	6.5	3.5	10
		0	10.00	7.2	2.8	20
29	MET	2	8.00	6.6	1.4	10
		2	8.00	6.3	1.7	20
40	John Hancock	2	10.00	4.7	5.3	20
38	Northwestern	0	11.00	7.2	3.8	10
		0	11.00	9.1	1.9	20
31	Northwestern	1	10.00	8.1	1.9	19
37	IDS/AMEX	2	8.80	5.8	3.0	18
32	IDS/AMEX	2	8.80	6.5	2.3	18
41	NYLI&C	1	10.00	6.6	3.4	15
32	Pacific Life	0	10.00	6.9	3.1	20
64	Chubb	5	12.00	8.4	3.6	11
36	Ohio Natl	1	12.00	10.5	1.5	19
		1	12.00	11.1	0.9	19
36	Reliastar	6	10.00	10.8	-0.8	5
48	PRU	13	8.00	6.2	1.8	10

Average Spreads:

New Policy, 10 years, ex low-load	5.3
New Policy, 10 years, Low-load	3.3
New Policy, 20 years, ex low-load	3.1
New Policy, 20 years, low-load	2.6
Existing Policy	2.2