

Increasing Retirement Income through the Power of Tax Deferral

By Matthew Grove and Professor Ira Weiss, Ph. D.

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EXECUTIVE SUMMARY

As the Baby Boomer generation ages, financial services companies have found their new reason for being. They have seized upon the image of a mass retirement wave in the U.S. to create an entire “retirement income” industry built on marketing income solutions to retiring boomers. They have been quite successful in this mission—if you pick up any financial periodical, you’re likely to find a headline about retirement income.

Although there’s no doubt that retirement income will play an important role in the years to come, the reality is that the median boomer is 51 years old¹—fourteen years away from the traditional retirement age. Because of this, the focus of Baby Boomers and the generations that follow would be better aimed at savings accumulation. After all, accumulation is truly the stepping stone to retirement income. The more assets one accumulates during working years, the more income one can generate during retirement.

For many investors, tax deferral should play a significant role in the accumulation process. By deferring taxes, investors allow gains to compound at a higher rate, creating significantly higher accumulated values over time. These higher accumulated values translate into a more robust retirement income stream, allowing investors to generate more retirement income, over a longer period of time, with a greater possibility of leaving a legacy for their heirs.

Notwithstanding this fact, many advisors underestimate the potential impact of tax deferral on retirement savings. And, many are uncertain how to quantify the value of tax deferral. This uncertainty stems from the fact that it takes a certain number of years of accumulation for the benefit of tax deferral to be realized, and investors with short time horizons may be better off in a taxable account in some cases.

Our analysis suggests that typical mutual fund investors with a moderate risk profile are better off in a low-cost tax-deferred account, rather than a taxable account, if they accumulate for more than ten years before generating retirement income. Conservative investors are better off in a tax-deferred account after just four years of accumulation, and aggressive investors will do better after thirteen years. These results are fairly consistent across a range of assumptions about investor characteristics and behavior.

So, how can consumers and their advisors take advantage of tax deferral? For much of the middle class, 401(k)s and IRAs provide an excellent vehicle for tax-deferred growth. However, the relatively low contribution caps of these vehicles can hamper many higher-earning investors’ ability to save tax-deferred. As a result, many investors have accumulated significant retirement savings in taxable accounts, and would have better outcomes if these assets were shifted to a tax-deferred account.

Variable annuities, which offer tax deferral with practically unlimited contribution limits, can help fill this savings gap. However, many advisors are suspicious of traditional variable annuities because their insurance costs are significant, averaging over 1.35% of assets annually². These extra costs undermine the basic premise of tax deferral – that assets will accumulate more quickly because returns are compounding at a higher rate – by reducing the compounding rate through the burden of higher investment costs. In fact, our analysis shows that retirement investors with a moderate risk profile would require 31 years of accumulation in a traditional variable annuity in order to do better than a taxable account – far higher than the ten years of accumulation required for a low-cost tax deferred account.

However, new developments in the market – most notably the recent introduction of flat insurance fee variable annuities (“flat fee VAs”), which cost a

¹ United States Dept. of Commerce, Bureau of the Census, Monthly Postcensal Resident Population plus Armed Forces overseas, by single year of age, sex, race, and Hispanic origin, August 1, 2007 ² Morningstar Principia, December, 2006

flat fee of \$240 per year, regardless of the amount invested—reduce the costs of investing in a variable annuity to negligible levels. Today, using this new class of variable annuity, retirement investors have almost unlimited access to low-cost tax deferral and can therefore choose to locate their entire retirement portfolios in a low-cost tax-deferred account.

The conclusions we draw from our analysis are two-fold. First, advisors should consider moving some taxable accounts earmarked for long-term accumulation into a flat fee VA, as their clients' after-tax outcome may be better. Second, advisors should review their clients' existing VAs to determine whether they meet client needs. If a client has a VA because they are looking for incremental growth via tax deferral, their current VA might not be accomplishing that goal. In such cases, advisors should consider making a tax-free 1035 exchange into a flat fee VA. Of course, the current annuity should be reviewed for any loss of benefits or surrender charges that may be incurred.

To help advisors make sense of this new opportunity, this whitepaper analyzes the topic of tax deferral in depth. In the first section, we provide an introduction to the savings landscape for retirement savers, and compare a sample investment outcome in a flat fee VA to the outcome in a taxable account. In the second section, we examine when tax deferral makes sense, and when it doesn't. In the third section, we analyze the sensitivity of our general results to investment strategy, tax bracket, withdrawal strategy and account size. In the last section, we draw some conclusions for investment advisors.

KEY FINDINGS

- Half of boomers are fourteen years or more away from the traditional retirement age. These boomers, and the generations that follow them, should focus on savings accumulation.
- Tax deferral can help many investors generate more robust retirement incomes. However, many HNW investors have inadequate access to tax deferral because they've maxed out their IRA and 401(k) contributions. A new type of low-cost variable annuity (VA), called a flat insurance fee VA ("flat fee VA"), provides an alternative source of tax deferral.
- Typical mutual fund investors with a moderate risk profile are better off in a flat fee VA, rather than a taxable account, if they accumulate savings for more than ten years before taking withdrawals to generate a retirement income. Conservative investors are better off in a flat fee VA after four years of accumulation, and aggressive investors will do better after thirteen years.
- Traditional VAs' high costs increase these "break even" periods to 23, 31 and 37 years for conservative, moderate and aggressive investors, making it difficult to recommend traditional VAs for the purpose of tax deferral.
- Although some advisors may prefer to locate clients' entire retirement portfolios in a flat fee VA, higher after-tax returns can be earned if advisors practice asset location—locating tax-inefficient asset classes in a flat fee VA and tax-efficient asset classes in a taxable account.
- Advisors' investing strategies can have an impact on these results. Advisors that actively trade their clients' accounts will almost always do better in a flat fee VA because active strategies typically involve high tax costs. On the other hand, advisors that hold portfolios of index funds will have longer break even periods than advisors that hold traditional mutual funds.
- Advisors should consider moving taxable accounts earmarked for long-term accumulation into a flat insurance fee VA, as their clients' after-tax outcome may be better. Additionally, advisors should review their clients' existing VAs to determine whether they meet client needs.

INTRODUCTION

Accumulation is the Stepping Stone to Retirement Income

By definition, retirement income is the province of retirees. But for most retirees, the amount of retirement income that they will enjoy is driven by decisions made decades prior to retirement. Retirement income is largely a function of savings, and the more savings an investor accumulates during their working years, the more income they will enjoy during retirement.

Luckily, the majority of the population still has many years to accumulate savings for retirement. In fact, the median Baby Boomer is 51 years old - fourteen years away from the traditional retirement age (see Display 1). For these boomers, and the generations that follow them, the focus should be on accumulating savings that will ultimately be transformed into retirement income through withdrawals, distributions or annuitization.

However, the pressure on pre-retirees to save is increasing dramatically. As the availability of pension plans decline and the future of Social Security is unknown, today's workers will increasingly depend on private savings to fund their retirement. These structural changes in the retirement landscape are here to stay, and today's savers need to maximize the growth of each dollar of savings. For many investors, tax deferral can help. By deferring taxes, investors allow gains to compound at a higher rate, creating significantly higher accumulated values over time. These higher accumulated values translate into a more robust retirement income stream, allowing investors to generate more retirement income, over a longer period of time, with a greater possibility of leaving a legacy for their heirs.

Tax-Deferred Investment Vehicles

For much of the middle class, the pillars of tax-deferred savings are 401(k)s, IRAs and their Roth cousins. However, these vehicles have relatively low annual contribution limits that prevent higher net

worth individuals from maximizing their tax-deferred savings.

Because of this, many higher net worth individuals have accumulated significant savings in taxable accounts. Moreover, many people will receive lump sums during their accumulation years, as a result of an inheritance, bonus, asset sale or other such event. If investors are forced to save for the long-term in a taxable vehicle, many investors could leave considerable money on the table.

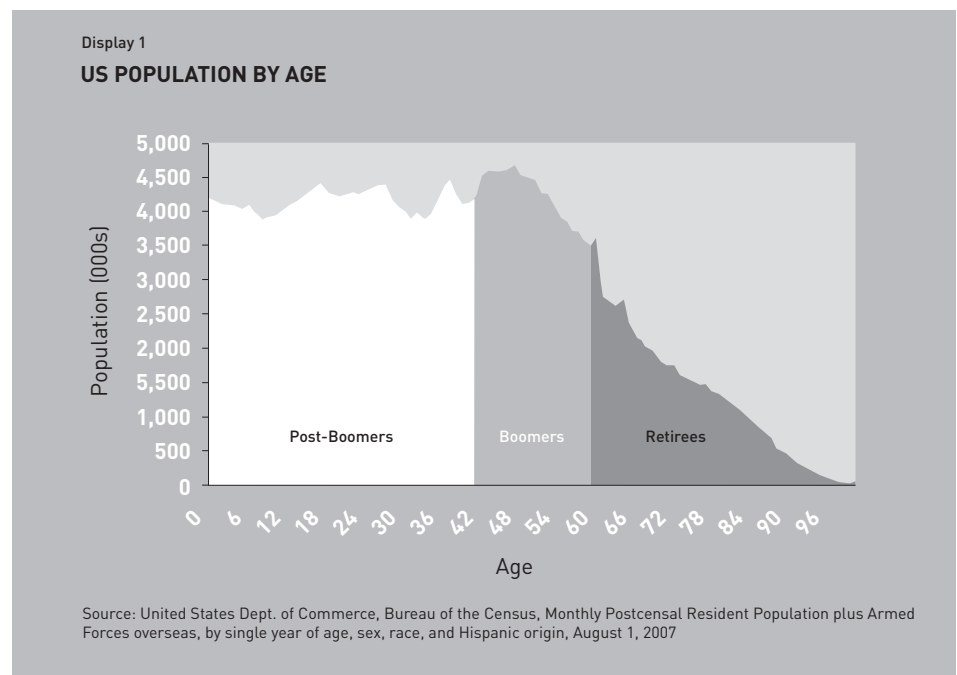
Fortunately, there is a vehicle that offers much higher capacity than 401(k)s and IRAs: the variable annuity, which offers lifetime contribution limits of as much as ten million dollars or more, and no restrictions on the amount that can be contributed in a given year.

However, many variable annuities have been saddled with high account-level charges. According to Morningstar, the average insurance cost of a variable annuity is 1.35% of assets, taken from the account annually. These insurance charges pay for brokers' commissions on the sale of the product, as well as a wide variety of living and death benefits. Unfortunately, this level of cost significantly undermines the value of tax deferral.

New Generation of Low Cost Variable Annuities

The recent introduction of flat fee variable annuities, however, has brought welcome relief from traditional VAs' costs. Flat fee VAs charge a flat insurance fee of \$240 per year, regardless of the amount saved in the account. They offer broad investment platforms with hundreds of investment options, much like traditional mutual fund supermarkets such as those at Schwab® or TD Ameritrade®. They don't charge surrender fees, and they don't offer insurance features other than an annuitization option. Unlike other variable annuities, flat fee VAs are specifically designed to be an alternative tax-deferred savings vehicle.

Because of their low costs, flat fee VAs create value for investors dramatically faster than traditional variable annuities. Our analysis shows that typical mutual fund investors with a moderate risk profile are better off in a flat fee VA, rather than a taxable account, if they invest for more than ten years before generating retirement income. Compare this to traditional variable annuities - which require 31 years to outperform a taxable account - and it's easy to see that flat fee VAs are a significant new tool in the retirement security landscape.



Benefits of Tax Deferral: A Case Study

Given a certain amount of money to invest for retirement, investors have three key questions:

- How much will I be able to spend per year in my retirement?
- How many years until I run out of money?
- How much of a legacy will I leave for my heirs?

Clearly, the answers to these questions depend not only on known variables such as the asset classes the investor will invest in, but also on unpredictable factors such as future market returns and the investor's ultimate longevity. However, in making a choice between a taxable account and a tax-deferred account, the investor is faced with a relative choice – namely, which type of account will allow them to do best, given the other factors at play.

Consider Joe, a 45 year old investor who will retire in 20 years at age 65. Joe has \$500,000 to invest, and is a moderate-risk mutual fund investor expecting a total return of 8%. Joe is in the highest tax bracket. At retirement, Joe estimates he will require \$90,000 in annual after-tax income to fund his lifestyle, growing with inflation of 2.6% per year. Because Joe wants to maintain access to his assets, he intends to take account withdrawals

to generate this income, rather than annuitizing his assets.

Joe considers two options for his investment: a taxable account, and a flat fee VA that costs \$240 per year.

Accumulated Values at 65

At age 65, the flat fee VA will have accumulated \$2.3 million, and the taxable account will have only accumulated \$1.5 million (Display 2). This makes intuitive sense because the taxable account has suffered from the drag of taxes on reinvested distributions, while the flat fee VA has benefited from the tax-free reinvestment of distributions.

However, when these accumulated values are converted into an income stream through account withdrawals, the flat fee VA will pay ordinary income taxes on all gains withdrawn, while the taxable account will benefit from lower rates – generally, a mix of dividend income rates, long-term capital gains rates (from share sales, for example), and ordinary income rates (from interest income, for example.)

The key question for Joe is whether he's accumulated enough incremental assets in the flat fee VA to overcome the disadvantage of higher income taxes on withdrawal. Because Joe must use after-tax dollars to buy goods and services, he is concerned with the after-tax value of the income stream he can generate, as well as the after-tax value of the inheritance

he can create. Therefore, to analyze the ability of the two accounts to generate income, we will compare the after-tax cash flows that Joe can generate from both accounts.

Income Generated

Assume that, starting at age 66, Joe takes \$90,000 a year in after-tax income from his savings, growing with inflation at 2.6% per year. If Joe lives to age 87, he will have exhausted the assets in the taxable account. However, the flat fee VA will still hold \$1.6 million (\$1.1 million after tax.) These extra assets will be Joe's legacy to his heirs.

Of course, Joe may very well live longer than that. In that case, the accumulated assets in the flat fee VA will continue to provide for Joe's income needs. In fact, Joe can continue to generate his required income for an extra nine years, to age 96. Display 3 demonstrates these two scenarios.

After-Tax IRRs

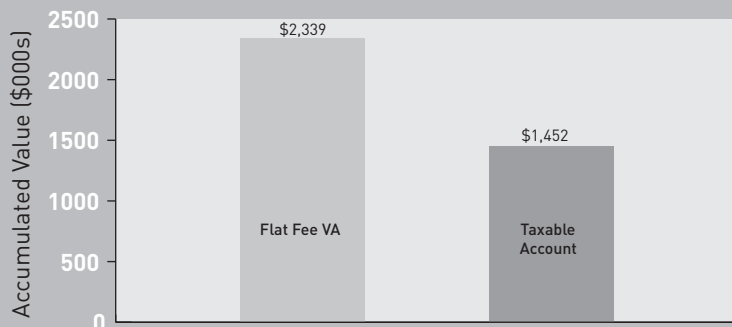
To understand the power of tax-deferral, it's useful to compare the IRR of the after-tax cash flows going into, and coming out of, the taxable account and the flat fee VA. To perform this analysis, we calculate the IRR of the following cash flows:

- A negative \$500,000 cash flow at year 0 (the initial investment)
- No cash flows for years 1-20 (because money stays inside the accounts)
- The after-tax cash flows generated during the income phase (\$90,000 per year growing at 2.6% inflation annually, until the money runs out)
- The after-tax value of a lump-sum withdrawal taken at age 87 (when Joe dies)

The IRR of the taxable account's after-tax cash flows is 5.3%, while the IRR of the flat fee VA's after-tax cash flows is 6.1%. For Joe, tax deferral has added an extra 80 bps in annual return over the course of his investment – a dramatic improvement.

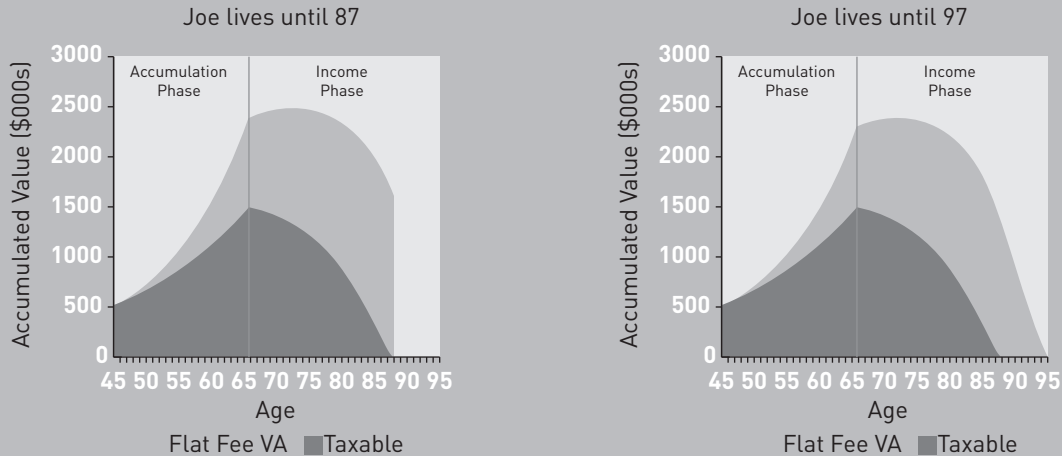
Display 2

JOE'S ACCUMULATED VALUES AT 65



Key Assumptions: \$500,000 investment in moderate portfolio at age 45. Highest tax bracket. Flat fee VA costs \$240/yr. For more details on assumptions, see "Key Assumptions" box on page 5. NOTE: The flat fee VA has paid no taxes on distributions, but the taxable account has paid taxes on reinvested distributions.

JOE'S ACCUMULATED VALUES OVER TIME



Key Assumptions: \$500,000 investment in moderate portfolio at age 45. \$90,000 withdrawal starting at age 66, growing with inflation at 2.6%. Highest tax bracket. Flat fee VA costs \$240/yr. For more details on assumptions, see "Key Assumptions" box on page 5.

Key Assumptions

To perform this analysis, we did primary research on the tax characteristics of traditional mutual funds, using data from the University of Chicago's Center for Research in Security Prices³ as well as Ibbotson Associates. Our research, which examined large cap, small-to-mid cap, and long-term bond funds over a 35-year period, breaks each asset

class' total return into different buckets based on tax treatment. The results of our research are shown in Display 4.

We used these asset classes to construct model portfolios that a typical conservative, moderate or aggressive investor might hold, as shown in Display 5.

We then built a model that generates cash flows for an investor holding the portfolios in a taxable account that has no fee and in a flat fee VA that charges \$240 per year. Our model makes the following assumptions:

- The investor is in the highest tax bracket and also pays the average state income tax of 5.4%, during both the accumulation phase and the income phase.
- In 2011, when many provisions of the Jobs and Growth Tax Relief Reconciliation Act of 2003 are scheduled to sunset, tax rates will increase.
- The investor reinvests all distributions during the accumulation phase and uses distributions and share sales, as necessary, to generate income during the income phase.
- The investor rebalances the account annually, but has no other portfolio turnover.

More details on our fund research and model assumptions can be found in the appendix to this report.

³ Calculated (or Derived) based on data from CUSIP database © 2007 Center for Research in Security Prices (CRSP ©), Graduate School of Business, The University of Chicago

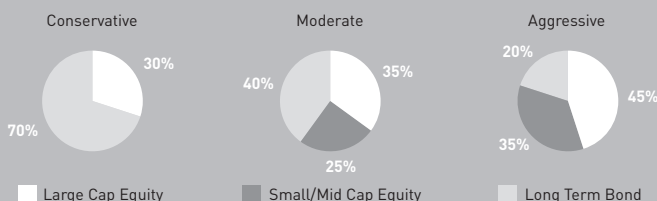
Display 4

ASSET CLASS CHARACTERISTICS

| Asset Classes | Asset Class Characteristics | | | | | |
|----------------------|-----------------------------|-----------------------|----------------|---------------------------------|---------------------------------|--------------|
| | NAV Return | Interest Income Yield | Dividend Yield | Realized LT Capital Gains Yield | Realized ST Capital Gains Yield | Total Return |
| Large Cap Equity | 2.4% | 0.0% | 1.9% | 4.3% | 0.8% | 9.4% |
| Small/Mid Cap Equity | 2.8% | 0.0% | 1.1% | 5.6% | 1.8% | 11.5% |
| Long Term Bond | -1.5% | 6.0% | 0.0% | 0.3% | 0.0% | 4.7% |

Display 5

MODEL PORTFOLIO ALLOCATIONS



THE CASE FOR TAX-DEFERRAL

The Portfolio Location Question

Investment advisors face an important question, called the portfolio location question: should they locate their clients' retirement portfolio in a taxable account, or a tax-deferred account? The stakes are high – if advisors choose correctly, their clients can benefit from significantly better after-tax performance, and if they choose poorly, their clients' after-tax performance will suffer.

Unfortunately, the answer to this important question is “it depends.” Although several factors play a role in this decision, the two most important factors are:

- **Investment Horizon:** the length of time that the investor will hold the portfolio before taking withdrawals.
- **Investment Type:** The types of assets held.

The intuition behind the first factor – investment horizon – is simple: the more years a tax-deferred portfolio enjoys the benefits of tax-free compounding, the better it will do relative to a taxable account. If an investor intends to hold a portfolio for a short time before withdrawing money from it, the impact of tax-free compounding will be small, and the investor may be better off holding the portfolio in a taxable account so that they enjoy a lower tax rate on withdrawal. On the other hand, if an investor intends to hold a portfolio for a long time before withdrawing money from it, they may be better off holding it in a tax-deferred account, because the impact of tax-free compounding may be so large that it outweighs the cost of higher taxes on withdrawal. Of course, advisers should also consider whether withdrawals will occur prior to age 59 1/2, since such withdrawals will incur a tax penalty in a tax-deferred account.

The intuition behind the second factor – investment type – is also simple: different types of assets have different tax characteristics, and may benefit from tax deferral to different degrees.

For instance, interest income-producing assets, such as long-term bonds, benefit from deferring taxes to a higher degree than assets that benefit from unrealized capital gains, like large cap equities.

We propose that advisors consider these two factors – investment horizon and investment type – when making the portfolio location decision.

The Value of Tax Deferral

To help advisors understand the value that tax deferral can create, we have computed the after-tax value of a “gains only” withdrawal from a taxable account and a flat fee VA for three model portfolios after 10, 20 and 30 years of accumulation.

The “gains only” withdrawal strategy withdraws the annual gains from the account, leaving principal at the end of the year equal to principal at the beginning of the year. This withdrawal strategy reflects the behavior of an investor who intends to use their savings to generate retirement income over an extended period of time.

As Display 6 shows, a flat fee VA can produce substantially higher after-tax investment gains than a taxable account, therefore creating a significantly higher retirement income.

To aid comparison, we've also shown the same figures for a traditional VA. Although it should be intuitive that a traditional VA will underperform a flat-fee VA, it may come as a shock that a traditional VA will also underperform a taxable account in most scenarios because of its' high costs.

The Break Even Period

A closer look at Display 6 reveals that the flat fee VA outperforms the taxable account in every case but one – an aggressive portfolio held for ten years. This result illustrates the portfolio location question described earlier. The proper location for a portfolio depends on the investment horizon and investment type. If a portfolio will be held for a short period of time, it may actually do better in a taxable account because tax deferral has not had enough time to work its magic.

To aid advisors in answering the portfolio location question properly, we've computed the break even period for each portfolio type (Display 7). The break even period is the investment horizon after which annual after-tax withdrawals from a flat fee VA exceed annual after-tax withdrawals from a taxable account, assuming the investor follows a “gains only” withdrawal strategy.

Display 6

MODEL PORTFOLIO AFTER-TAX ANNUAL INVESTMENT GAINS ON \$100,000 INVESTMENT

| Investment Horizon | Account Type | Conservative | Moderate | Aggressive |
|--------------------|----------------|--------------|----------|------------|
| 10 | Taxable | \$ 4,929 | \$ 9,144 | \$ 12,457 |
| | Flat Fee VA | 5,849 | 9,228 | 11,728 |
| | Traditional VA | 4,173 | 6,967 | 9,047 |
| 20 | Taxable | 6,885 | 15,330 | 23,401 |
| | Flat Fee VA | 10,593 | 20,007 | 28,255 |
| | Traditional VA | 6,652 | 13,311 | 19,226 |
| 30 | Taxable | 9,625 | 25,745 | 44,072 |
| | Flat Fee VA | 19,187 | 43,375 | 68,073 |
| | Traditional VA | 10,603 | 25,432 | 40,854 |

Key Assumptions: \$100,000 investment. Highest tax bracket. Flat fee VA costs \$240/yr. Traditional VA costs 1.35% per year (based on Morningstar data). For more details on assumptions, see “Key Assumptions” box on page 5.

If an investor intends to hold a retirement portfolio for longer than the break even period, they are likely to generate more after-tax income if they hold the portfolio in a flat fee VA rather than a taxable account.

For comparison, we've also presented the break even periods for traditional VAs. As can be seen, traditional VAs take so long to break even that it is difficult to justify using a traditional VA to get tax deferral in most scenarios.

Asset Location: How To Optimize Tax-Deferral

For many advisors, the portfolio location strategy outlined above can help their clients generate substantially more retirement income. However, for advisors willing to go an extra step, a more refined strategy called asset location can optimize client performance even more.

In the asset location strategy, an investor holds their tax-efficient asset classes in a taxable account, and their tax-inefficient assets in a tax-deferred account. The decision to hold an asset class in a taxable account or a tax-deferred account is governed by the investors' horizon and the asset class' break even. Break evens for individual asset classes are shown in Display 8.

For instance, a conservative investor with a ten year investment horizon wishes to hold a conservative portfolio (containing 70% long term bonds and 30% large cap equities.) As we saw in Display 7, the break even for the entire portfolio in a flat fee VA is four years – meaning the

Display 8

ASSET CLASS BREAK EVEN PERIODS FOR FLAT FEE VA (RELATIVE TO TAXABLE ACCOUNT)

| | Large Cap Equity | Small/Mid Cap Equity | Long Term Bonds |
|------------|------------------|----------------------|-----------------|
| Break even | 17 | 14 | 1 |

Key Assumptions: \$100,000 investment. Highest tax bracket. Flat fee VA costs \$240/yr. For more details on assumptions, see "Key Assumptions" box on page 5.

investor would be better off holding the entire portfolio in a flat fee VA rather than a taxable account.

However, a more refined analysis notes that over ten years, long-term bonds outperform in the tax-deferred account, and large cap equities outperform in the taxable account. The investor could do even better by holding the long term bonds in a flat fee VA, and holding the large cap equities in a taxable account.

Although asset location holds the potential to optimize client returns, the difficulty can be the difficulty, and the expense, of rebalancing across taxable and tax-deferred accounts. For advisors willing to undertake this exercise, the rewards can be significant. Luckily, there are software packages available that will automate a lot of this rebalancing activity.

Other Asset Classes

Although our analysis only covered large cap equities, small/mid cap equities and long-term bonds, many investors' portfolios hold a range of other asset classes as well. Our analysis demonstrates that asset classes that make large ordinary income distributions or generate significant short-term capital gains tend to have short break even periods, because they are tax inefficient. Asset classes that match this description include REITs, commodities funds and absolute return funds. For advisors practicing asset location, these asset classes may also belong in a tax-deferred account.

Display 7

MODEL PORTFOLIO BREAK EVEN PERIODS (RELATIVE TO TAXABLE ACCOUNT)

| | Conservative | Moderate | Aggressive |
|----------------|--------------|----------|------------|
| Flat Fee VA | 4 | 10 | 13 |
| Traditional VA | 23 | 31 | 37 |

Key Assumptions: \$100,000 investment. Highest tax bracket. Flat fee VA costs \$240/yr. For more details on assumptions, see "Key Assumptions" box on page 5.

SENSITIVITY TESTS

Although investment horizon and investment type are the primary drivers of the portfolio location decision, other factors matter as well. In particular, an advisors' investment strategy, tax bracket, withdrawal strategy and account size can impact the decision as well. In this section, we evaluate the sensitivity of the break even periods to these factors.

Investment Strategy

In a taxable account, trading creates taxable events which can generate a further drag on taxable returns. In flat fee VAs, trading does not generate any taxable events. While trading frequency can span a wide range, we'll look at four trading strategies across the spectrum of behavior.

Annual Rebalancing With No Other Turnover

Many investors choose to allocate their investment among different asset classes according to targeted allocation percentages. Over time, higher-performing asset classes will become a larger percentage of the portfolio and lower-performing asset classes will become a smaller percentage. To restore the portfolio to its original target allocation, the investor must rebalance the portfolio by selling

the asset classes that outperformed and buying the asset classes that underperformed. In a taxable account, these sales generate capital gains which reduce portfolio performance. However, in a flat fee VA, rebalancing does not generate current tax costs because all taxes are deferred. The break even periods we've presented assume this "rebalancing only" scenario, which is conservative given that many investors experience other turnover as well, decreasing the performance of the taxable account.

Annual Rebalancing with Some Additional Turnover

In addition to rebalancing, many investors also move in and out of funds within an asset class, to take advantage of perceived opportunities for alpha. In a taxable account, this additional portfolio turnover results in more realized capital gains, increasing the tax burden to the investor. To a certain extent, this burden can be reduced by tax-loss harvesting. However, as Robert Jeffrey eloquently states in his Journal of Wealth Management article "Tax-Efficient Investing Is Easier Said Than Done," it is very difficult to make up for the burden of these increased taxes⁴. Regardless, in a flat fee VA, investors can turn over their portfolio

without generating any tax consequences whatsoever. If an investor experiences additional turnover, break even periods will be shorter than those presented.

Active Trading

Active traders move in and out of positions frequently, trying to benefit from short-term market moves. Although this type of trading has the potential to capture alpha, it is very tax-inefficient. For the most aggressive active traders, all capital gains are short-term, and dividends may not meet the "qualified dividend" holding period criteria. As such, the investor's entire return will be taxed at ordinary income rates. In this case, it is almost always better to use a flat fee VA, rather than a taxable account, because it gives the investor the ability to defer ordinary income taxes that would be paid today to ordinary income taxes paid in the future.

Passive Index Fund Investing

The break even periods we've presented assume that the investor holds actively managed mutual funds with average expense ratios and distribution characteristics. This is reflective of the market, as the vast majority of mutual fund assets are held in actively managed funds.

However, some advisors exclusively use low-cost index funds in their practice. One of the differences between index funds and actively managed funds is that many index funds have very low turnover. Because of this, they distribute far less realized long term and short-term capital gains, instead offering much of their return through NAV gains. This results in better performance on an after-tax basis.

To help advisors that invest in index funds understand the benefits of tax deferral to their practice, we've computed break even periods for the two equity asset classes and the three model portfolios (substituting the index funds for the two "average" equity funds used elsewhere in the

⁴ Robert H. Jeffrey, "Tax-Efficient Investing is Easier Said Than Done," The Journal of Wealth Management Summer 2001: 9

Display 9

ASSET CLASS BREAK EVEN PERIODS FOR FLAT FEE VA USING INDEX FUNDS (RELATIVE TO TAXABLE ACCOUNT)

| | Large Cap Equity | Small/Mid Cap Equity | Long Term Bonds |
|------------|------------------|----------------------|-----------------|
| Break even | 24 | 16 | N/A |

Key Assumptions: \$100,000 investment. Highest tax bracket. Flat fee VA costs \$240/yr. For more details on assumptions, see "Key Assumptions" box on page 5. NOTE: Index fund data for long-term bonds not available, but a long-term bond index fund is likely to be similar to a "traditional" long-term bond fund.

Display 10

MODEL PORTFOLIO BREAK EVEN PERIODS FOR FLAT FEE VA USING INDEX FUNDS FOR EQUITY ASSET CLASSES (RELATIVE TO TAXABLE ACCOUNT)

| | Conservative | Moderate | Aggressive |
|------------|--------------|----------|------------|
| Break even | 6 | 13 | 16 |

Key Assumptions: \$100,000 investment. Highest tax bracket. Flat fee VA costs \$240/yr. For more details on assumptions, see "Key Assumptions" box on page 5.

Display 11

MODEL PORTFOLIO BREAK EVEN PERIODS (RELATIVE TO TAXABLE ACCOUNT)

| Tax Bracket | Conservative | Moderate | Aggressive |
|-------------|--------------|----------|------------|
| 10% | 5 | 8 | 10 |
| 15% | 4 | 8 | 9 |
| 25% | 3 | 7 | 9 |
| 28% | 4 | 8 | 10 |
| 33% | 4 | 9 | 12 |
| 35% | 4 | 10 | 13 |

Key Assumptions: \$100,000 investment. Flat fee VA costs \$240/yr. For more details on assumptions, see "Key Assumptions" box on page 5. NOTE: Break even periods in the 10% and 15% tax brackets are higher than break even periods for the 25% bracket because long-term capital gains rates are lower for these two tax brackets, increasing the ratio of ordinary income rates to long-term capital gains rates.

whitepaper.) These results are shown in Display 9 and 10. For more details on the index fund analysis, see the appendix.

Tax Factors

Tax Brackets Lower than the Maximum

Throughout this white paper, we've assumed the investor is in the highest federal tax-bracket, plus state taxes of 5.4%, which is the average across all states' maximum tax brackets.

We've used the highest tax bracket because it is the most conservative approach. Individuals whose tax brackets are lower than the maximum will generally have lower break even periods, as Display 11 demonstrates, because the ratio of ordinary income rates to long-term capital gains rates generally decreases as the tax bracket declines.

Tax Brackets Declining at Retirement

Many investors' tax brackets will decline at retirement because they are no longer receiving the same amount of income they generated during their working years. If this occurs, an investment in a flat fee VA benefits because investors are able to push taxation back until their tax bracket declines. However, investors in a taxable account do not receive as significant a benefit because they are subjected to their higher working-years tax bracket as they accumulate. Thus, break even periods will be shorter for investors who expect their tax bracket to decline at retirement.

Different Tax Regimes

In 2011, when many provisions of the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA) are scheduled to sunset, tax rates will increase. Rate increases for the highest tax bracket are described in Display 12.

The results presented in this paper assume that investments are made at the beginning of 2008, and that federal tax rates increase in 2011, as current law provides. However, advisors may have different views on the likelihood of tax rates actually increasing. To provide insight into what would happen if tax rates

do not increase, we provide separate break evens for the current tax regime (2003 JGTRRA law) and for the expected 2011 tax regime in Display 13.

As can be seen, break evens will reduce in 2011, if the tax law changes as current law provides. Nonetheless, break even periods under current tax law are still fairly low, at 6, 13 and 16 years, for the conservative, moderate and aggressive portfolios, respectively.

Withdrawal Strategy

Investors can take withdrawals from an account in many ways. The withdrawal strategy that this paper has examined is the "gains only" strategy, which assumes that investors withdraw annual after-tax gains from the account, so that principal at the end of a year equals principal at the beginning of the year. This strategy is meant to approximate the way in which an investor generating retirement income from their savings will take withdrawals.

However, investors may employ other withdrawal strategies. To provide a sense of how these strategies will affect the break even period, we'll take a look at two alternative strategies in Display 15: "lump sum withdrawals" and "lump sum

Display 12

FEDERAL TAX RATES TODAY AND AFTER JGTRRA EXPIRATION (2011)

| Tax rate | Highest rate today | Highest rate 2011 |
|-------------------------------|--------------------|-------------------|
| Dividend rate | 15% | 39.6% |
| Ordinary income rate | 35% | 39.6% |
| Short-term capital gains rate | 35% | 39.6% |
| Long-term capital gains rate | 15% | 20% |

Display 13

MODEL PORTFOLIO BREAK EVEN PERIODS FOR FLAT FEE VA BY TAX REGIME (RELATIVE TO TAXABLE ACCOUNT)

| Tax Regime | Conservative | Moderate | Aggressive |
|--------------------------------|--------------|----------|------------|
| Today | 6 | 13 | 16 |
| After JGTRRA expiration (2011) | 3 | 10 | 12 |

Key Assumptions: \$100,000 investment. Highest tax bracket. Flat fee VA costs \$240/yr. For more details on assumptions, see "Key Assumptions" box on page 5.

SUMMARY OF WITHDRAWAL STRATEGIES

| Withdrawal strategy | Description |
|-------------------------------------|---|
| Gains only | Withdraw annual after-tax gains from the account, so that principal at the end of a year equals principal at the beginning of the year. |
| Lump sum | Withdraw the entire account value. |
| Lump sum (with step-up in basis) | Withdraw the entire account value after inheriting the account. In the taxable account, the account benefits from a step-up in basis. |

MODEL PORTFOLIO BREAK EVEN PERIODS FOR FLAT FEE VA BY WITHDRAWAL STRATEGY (RELATIVE TO TAXABLE ACCOUNT)

| Withdrawal strategy | Conservative | Moderate | Aggressive |
|-------------------------------------|--------------|----------|------------|
| Gains only | 4 | 10 | 13 |
| Lump sum | 10 | 16 | 18 |
| Lump sum (with step-up in basis) | 10 | 19 | 22 |

Key Assumptions: \$100,000 investment. Highest tax bracket. Flat fee VA costs \$240/yr. For more details on assumptions, see "Key Assumptions" box on page 5.

withdrawals with a step-up in basis."

Lump sum withdrawals liquidate the entire account. A lump-sum withdrawal might be used by an investor who wishes to use the entire accumulated value to buy a house, for example. The break even period for lump-sum withdrawals measures the investment horizon at which a lump sum withdrawal from a tax-deferred account exceeds a lump sum withdrawal from a taxable account, on an after-tax basis.

Lump sum withdrawals with a step-up in basis liquidate the entire account after it has been inherited by an heir. One of the primary benefits of taxable accounts is that they benefit from a step-up in basis in this situation. This step-up in basis means that the person inheriting the assets does not have to pay any capital gains on their inheritance, as the basis is reset to the account value. On the other hand, in a flat fee VA, the person inheriting the assets would have to pay ordinary income taxes on the difference between the account value and the basis. The break even period for lump-sum withdrawals with a step up in basis measures the investment horizon at which a lump sum withdrawal from a tax-deferred account exceeds a lump sum withdrawal from a taxable ac-

count, on an after-tax basis and assuming the original investor has passed away and bequeathed the account to their heirs.

Account Size

The flat fee VA we model in this whitepaper carries a flat \$240/year fee. Because this fee is flat, larger accounts benefit to a greater degree than smaller accounts. To evaluate how account size affects the value of tax deferral, we computed break even periods across a range of initial contributions.

As Display 16 shows, break even periods decline as the contribution increases. For instance, the break even period for a \$250,000 investment would be 3, 9 and 12 years for a conservative, moderate and aggressive investor – lower than 4, 10 and 13 year numbers presented earlier in this paper for a \$100,000 investment.

Other Considerations

In considering whether to use a taxable account, traditional VA or flat fee VA, several other factors may come into play, as each vehicle has different characteristics.

Liquidity

Variable annuities are similar to IRAs and 401(k)s, in that withdrawals prior to age

59 1/2 receive a tax penalty. Additionally, traditional VAs may have surrender charges, which penalize investors for withdrawing funds within a certain number of years. Flat fee VAs do not have surrender charges, although they are subject to the age 59 1/2 rule.

On the other hand, taxable accounts are completely liquid regardless of the investors' age. Our analysis assumes that the investor will withdraw funds from both the taxable account and the flat fee VA after age 59 1/2, rendering this distinction irrelevant. However, younger investors may place a value on liquidity, increasing the attractiveness of a taxable account.

Annuitization

Unlike taxable accounts, variable annuities contain an option to provide a guaranteed income for life, called an annuity income. This option can make sense for many investors, as it provides a hedge against longevity risk. Our analysis focuses on account withdrawals, rather than annuitization, to provide an apples-to-apples comparison of the flat fee VA to the taxable account. However, an investor may place a value on annuitization, increasing the attractiveness of variable annuities.

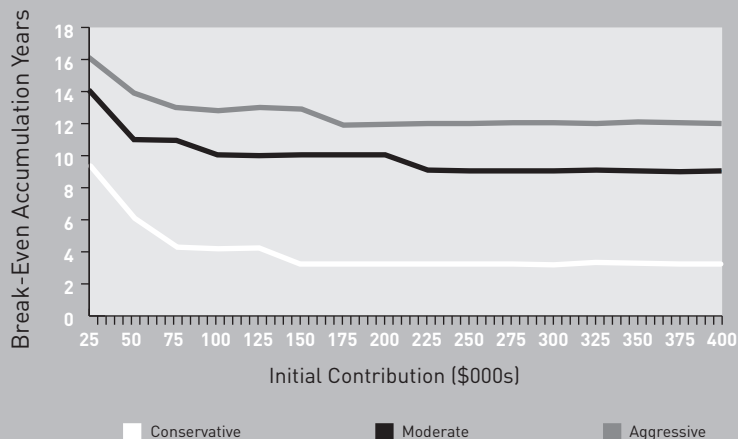
Additional Aspects of Traditional VAs

Traditional VAs often carry surrender charges, which penalize investors for withdrawing money from the VA prior to a set date. These charges can be significant – 5% or more – and can last for five or more years. Flat fee VAs do not have surrender charges.

Additionally, traditional VAs often have features that flat fee VAs do not. For instance, traditional VAs often offer a "return of premium" death benefit that guarantees that, upon the owner's death, the account value of the VA will be equal to the contributions to the VA, at minimum. Traditional VAs may also offer other benefits that guarantee various elements of investment performance, frequently for an additional cost. These benefits may

Display 16

MODEL PORTFOLIO BREAK EVEN PERIODS FOR FLAT FEE VA BY INITIAL CONTRIBUTION (RELATIVE TO TAXABLE ACCOUNT)



Key Assumptions: Highest tax bracket. Flat fee VA costs \$240/yr. For more details on assumptions, see "Key Assumptions" box on page 5.

be valued by some investors. However, our comparison of traditional VAs to flat fee VAs does not attribute a value to these features; rather, we assume that the investor is purely interested in using the VA as a tax-deferred investment vehicle.

CONCLUSION

Although the market’s focus on retirement income is well-placed, the reality is that retirement income is largely a function of savings. If an investor wants to generate more retirement income, they need to accumulate more savings.

Fortunately, most baby boomers, and the entirety of the generations that follow, have many years of savings accumulation ahead of them. These investors should be maximizing their savings, and tax deferral can help. Tax deferral can supercharge accumulation, translating into increased income at retirement.

While traditional tax-deferred vehicles like 401(k)s and IRAs are adequate for the middle class, higher net worth individuals (and even many middle class households)

can easily max out contributions to these vehicles. As a result, many individuals have accumulated significant taxable savings that would be better off in a tax-deferred vehicle.

Variable annuities are a natural solution to this dilemma, but historically their high costs have undermined the value of tax deferral, to such an extent that they can actually destroy value for investors. Recently, a new class of variable annuities have emerged – flat fee VAs, which bring the costs of investing down to levels that allow tax deferral to shine. This new vehicle closes the tax-deferred savings gap for higher net worth investors, enabling deferral for the entire retirement portfolio.

We offer a few practical recommendations for investment advisors considering the use of this new tool below.

Retirement Income “To Dos”

→ First, focus your clients on saving more. Greater savings before retirement is the only sure fire way to generate more income in retirement.

→ Have clients max out their 401(k)s and IRAs to gain tax deferral and other advantages, such as employer matches to the 401(k).

→ Further maximize retirement savings by taking advantage of tax deferral through low cost variable annuities, specifically those that charge flat fees.

→ Proper location of client portfolios is essential for driving optimal after-tax returns. To evaluate the best location for your clients’ existing taxable portfolios, you must analyze their investment horizon and investment type (Display 17). Portfolios that contain a high proportion of bonds (or other tax-inefficient asset classes) will outperform in a flat fee VA fairly rapidly; equity portfolios will require a longer investment horizon before they outperform. However, even aggressive portfolios will outperform in a flat fee VA when invested for 13 years or more, making them appropriate vehicles for many

Display 17

WHEN FLAT FEE VAS OUTPERFORM TAXABLE ACCOUNTS

| Investment Horizon | Investment Type | | |
|--------------------|-----------------|----------|------------|
| | Conservative | Moderate | Aggressive |
| 4-9 years | Yes | No | No |
| 10-12 years | Yes | Yes | No |
| 13 years or more | Yes | Yes | Yes |

Key Assumptions: Highest tax bracket. Flat fee VA costs \$240/yr. \$100,000 initial investment. "Gains only" withdrawal strategy. For more details on assumptions, see "Key Assumptions" box on page 5.

boomers' retirement savings.

→ Of course, advisors should take the whole investment picture into account, including the need for liquidity, in making the portfolio location decision.

→ Advisors who want to take an extra step towards portfolio optimization should consider using asset location rather than portfolio location. Under the asset location strategy, advisors locate individual asset classes, rather than entire portfolios, in the most tax-efficient vehicle, based on the investment horizon. Although asset location requires more work, it can pay off in terms of higher returns.

→ Lastly, examine clients' existing variable annuities to see if they are candidates for a free 1035 exchange into a low cost VA. If a client has a VA because they are looking for incremental growth via tax deferral, it's likely that their current VA is not accomplishing that goal. In evaluating whether to make a 1035 exchange, advisors should consider any surrender charges present in the current VA as well as any benefits that may be forfeited.

Tax Deferral is Key

Tax deferral should play a major role in increasing retirement savings and the resultant income those savings will generate during retirement. The new class of flat fee VAs now makes this possible without fees destroying the value of tax deferral. By taking another look at tax deferral strategies and these new VAs, advisors can improve the performance of their clients' accounts.

APPENDIX: TECHNICAL REVIEW

To perform the analysis presented in this whitepaper, we developed a detailed analytical model that generates cash flows, break even periods and IRRs based on a variety of inputs, including asset allocation, tax bracket and investment horizon.

Although the box on page 5 provides an overview of the key assumptions made, this section elaborates on the model for advisors interested in more detail.

Model Data

To perform this analysis, we did primary research on the tax characteristics of traditional mutual funds. Our research, which examined large cap, small-to-mid cap, and long-term bond funds, breaks each asset class' total return into different buckets based on tax treatment.

The results of our research are shown in Display 18. To recreate total return from the NAV returns and distributions shown, use the formula in Display 19, which assumes that distributions are paid in the middle of the year.

To derive our results, two types of data were gathered: distribution characteristics, and the total return of each asset

class. The sections below describe the source of this data.

Distribution Characteristics

Underlying return characteristics data was gathered from a database from the Center for Research in Security Prices (CRSP) at the University of Chicago's Graduate School of Business⁵. For each asset class, distribution data reflects the average of all mutual funds available during the 35 year period ending in 2006, adjusted for splits. This time period was chosen because prior to this period, there were not enough bond funds to provide a reasonable sample. Our sample contained 101 large cap equity funds, 29 small\mid cap equity funds and 7 bond funds. To validate our results, we compared the pattern of distribution characteristics we found to the distribution characteristics reported by two other papers covering similar topics and found them similar^{6,7}.

Total Return

Total return data for the three asset classes is from "Stocks, Bonds, Bills, and Inflation" from Ibbotson for the 80 year period ending in 2006. This time period was chosen because it is the longest time period available from Ibbotson. Returns

Display 18

ASSET CLASS CHARACTERISTICS

| Asset Classes | Asset Class Characteristics | | | | | Total Return |
|----------------------|-----------------------------|-----------------------|----------------|---------------------------------|---------------------------------|--------------|
| | NAV Return | Interest Income Yield | Dividend Yield | Realized LT Capital Gains Yield | Realized ST Capital Gains Yield | |
| Large Cap Equity | 2.4% | 0.0% | 1.9% | 4.3% | 0.8% | 9.4% |
| Small\Mid Cap Equity | 2.8% | 0.0% | 1.1% | 5.6% | 1.8% | 11.5% |
| Long Term Bond | -1.5% | 6.0% | 0.0% | 0.3% | 0.0% | 4.7% |

Display 19

CALCULATION OF TOTAL RETURN

$Distribution\ Yield = Interest\ Income\ Yield + Dividend\ Yield + Realized\ LT\ Capital\ Gains\ Yield + Realized\ ST\ Capital\ Gains\ Yield$

$Total\ Return = NAV\ Return + Distribution\ Yield * (1 + NAV\ Return)^{1/2}$

are reduced to reflect the average cost of the mutual funds in the distribution data set. The average costs of the mutual funds were 99 bps for the large cap equity asset class, 123 bps for the small\mid cap equity asset class and 119 bps for the long term bond asset class.

To generate the numbers in Display 18, we scaled the distribution characteristics we derived from the CRSP database so that each asset class' total return was equal to the total return derived from Ibbotson.

Model Portfolios

We used the asset class data to construct portfolios that a typical conservative, moderate or aggressive investor might hold, as shown in Display 20.

Index Fund Characteristics

To evaluate index fund performance (Display 21), we calculated the distribution characteristics of two index funds: Vanguard's 500 and Small Cap Index Funds. Distribution data was retrieved from CRSP for the 30 year period ending in 2006. This period is shorter than that used for the actively managed funds because the index funds were not available for the full 35 year period.

To make these funds comparable to the funds used in the rest of the whitepaper, we used Ibbotson return rates as a basis for the index funds' total return. However, to reflect the lower cost of index funds, we reduced Ibbotson's return numbers by the cost of the two index funds (18 bps for the 500 Index Fund, and 23 bps for the Small Cap Index Fund), rather than the higher costs of actively-managed funds.

Calculation Methodology

We then built a model that generates cash flows for an investor holding the portfolios in a taxable account, a traditional VA, and a flat fee VA.

The model makes a number of assumptions, which we believe to be reasonable reflections of investor behavior. In certain places in the whitepaper, these assumptions are modified to demonstrate alternative scenarios. Results of alternative scenarios are clearly labeled.

Our model makes the following assumptions:

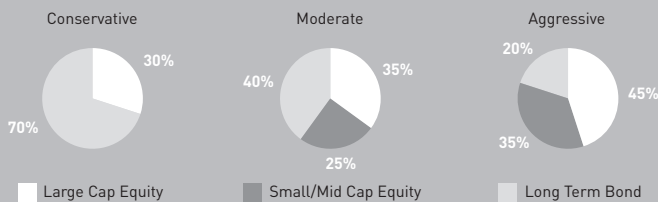
- The investor is assumed to be in the maximum federal tax bracket and to pay the average state income tax of 5.4%, applied to both capital gains and ordinary income. Local taxes are not

included. The investor is assumed to be in the same tax bracket during both the accumulation phase and the income phase.

- The investment is assumed to be made at the beginning of 2008, and federal tax rates are assumed to increase in 2011, when many of the provisions of the JGTRRA Act of 2003 are scheduled to sunset.
- The investor reinvests all distributions during the accumulation phase and uses distributions and share sales, as necessary, to generate income in the income phase.
- The investor rebalances the account annually, but has no other portfolio turnover.
- In the taxable account, when shares are sold, basis is reduced according to the average-cost method.
- In the taxable account, capital losses on sales are netted against capital gains; excess losses are netted against ordinary income received, reducing income taxes on distributions, up to the \$3,000 limit. If capital losses remain after this treatment, they are carried forward to the next year.
- Traditional VAs cost 1.35% per year. Flat fee VAs cost \$240 per year. Taxable accounts don't cost anything.
- Although there may be differences between the underlying expenses of the funds in the taxable account and the VAs, fund expenses are assumed to be identical.
- The model uses linear growth projections.

Display 20

MODEL ALLOCATIONS



Display 21

INDEX FUND CHARACTERISTICS

| Asset Classes | Asset Class Characteristics | | | | | Total Return |
|----------------------|-----------------------------|-----------------------|----------------|---------------------------------|---------------------------------|--------------|
| | NAV Return | Interest Income Yield | Dividend Yield | Realized LT Capital Gains Yield | Realized ST Capital Gains Yield | |
| Large Cap Equity | 6.3% | 0.0% | 2.9% | 0.7% | 0.1% | 10.2% |
| Small\Mid Cap Equity | 3.8% | 0.0% | 1.4% | 6.1% | 1.0% | 12.5% |

5 Calculated (or Derived) based on data from CUSIP database © 2007 Center for Research in Security Prices (CRSP®), Graduate School of Business, The University of Chicago

6 James M. Poterba, John B. Shoven and Clemens Sialm, "Asset Allocation for Retirement Savers," National Bureau of Economic Research Working Paper Series, 2000

7 "Annuitization vs. Systematic Withdrawal after the 2003 Tax Act," National Association for Variable Annuities, 2003

ABOUT THE AUTHORS

Matthew Grove

Matthew Grove is Jefferson National's senior vice president responsible for product development and Jefferson National's investment platform. Prior to Jefferson National, Mr. Grove was the President and Founder of Diginexus, a software consulting firm specializing in the financial services industry. Prior to Diginexus, Mr. Grove was an investment banker at Donaldson, Lufkin & Jenrette. Mr. Grove has an MBA from Columbia University and graduated summa cum laude from the University of Pennsylvania with a B.S.E. in Computer Science.

Professor Ira Weiss, Ph. D.

Ira Weiss is an Assistant Professor of Accounting visiting The University of Chicago's Graduate School of Business from Columbia University. Professor Weiss studies how taxes affect the decisions made by businesses and conducts research that may improve financial reporting. His tax research to date has focused on whether mutual fund managers take into account shareholder-level taxes when buying and selling securities. In the area of financial accounting, he has studied whether the relevance of financial reports has changed over time, and he is currently investigating how firms use discretion to manipulate financial reports. Professor Weiss received his MBA and Ph. D. from the University of Chicago.

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9920 Corporate Campus Drive
Louisville, Kentucky 40223
866.667.0564
www.jeffnat.com

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