

IMPLEMENTING TOTAL RETURN TRUSTS

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I. INTRODUCTION

With the steady decline in interest rates and stock dividend yields over the last 20 years, fiduciaries that can only distribute fiduciary accounting income to current beneficiaries have found themselves in a bind. Many trusts can no longer generate a level of income that meets the needs of current beneficiaries, causing fiduciaries to consider investments in higher yielding assets to boost distributions. However, assets with higher yields may not present the same return potential as other investments, restraining portfolio growth and possibly eroding the assets left for the remainder beneficiary. Without the ability to make discretionary distributions, fiduciaries are left in a difficult situation, trying to balance current portfolio needs without sacrificing the long-term return potential of the trust. As such, over the last decade, a number of pieces of legislation have been enacted in order to allow fiduciaries to invest for the highest total return but not “starve” the current beneficiary in the process. These trusts are colloquially termed “Total Return Trusts.”

The actual implementation of these “Total Return Trusts” requires not only an understanding of tax and trust law but also an understanding of modern portfolio theory. It requires fiduciaries to determine what the investments of the trust should be, how the distribution policy to the current beneficiary should be structured, and who bears the burden of the income tax liability. This article does not seek to provide a universal answer for how Total Return Trusts should be designed. Nor does this article attempt to retill the legal ground surrounding Total Return Trusts, which has been so ably done by others. Rather, this article seeks to provide estate planning attorneys, fiduciaries and other professionals with an understanding of the complexity of the issues involved and a methodology by which professionals can make the crucial decisions needed to implement a Total Return Trust. The hope is that by following this methodology professionals can dimension the advantages and disadvantages of their decisions and provide realistic expectations for beneficiaries and grantors.

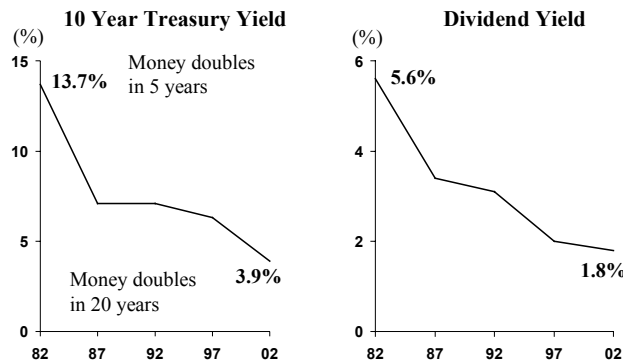
This article will first show how we define Total Return Trusts. It will then detail the major pieces of legislation and current regulatory rules surrounding Total Return Trusts. Based on the parameters set out by law and the regulations, we then quantify how each decision that a professional might make could affect the current and remainder beneficiary, at times using historical returns, but mainly using our proprietary capital markets engine to help forecast a realistic range of outcomes for the future. Finally, this article will give some guidelines and a methodology that will be helpful to professionals in drafting and implementing Total Return Trusts.

II. WHAT IS A “TOTAL RETURN TRUST”?

“Total Return” is the term used to describe an investment principle under modern portfolio theory. This principle essentially provides that the “return” on an asset is not strictly limited to the yield (dividends, interest, rents, etc.) it produces, but also includes the gain or loss that the asset realizes as its value appreciates or depreciates. In a very simplistic sense, Total Return, as a standard for investment performance, encourages investors to seek the highest overall return (given a certain risk tolerance and within the bounds of prudent investing), without being needlessly hampered by how that return is created.

In the context of traditional trusts, where fiduciary accounting concepts of “income” and “principal” continue to prevail and where “income” beneficiaries often do not have the same identity as the “remainder” beneficiaries, investing for “Total Return” becomes nearly impossible. This is because the nature of returns in the capital markets will change over time. Consider, for example, what has happened in the U.S. capital markets over the last 20 years:

Interest Rates and Dividend Yields Have Collapsed



As one can see, during this twenty-year period, Treasury yields and dividend yields have dropped dramatically. An income trust that had been invested in a 60% stock and 40% bond allocation would have produced the following yields over the last 20 years:²

| | <u>1982</u> | <u>1992</u> | <u>2002</u> |
|--------------------|-------------|-------------|-------------|
| Yield of Portfolio | 8.8% | 4.7% | 2.9% |

Given where interest rates and dividend yields were in 2002, in order to provide a yield similar to that achieved in 1982, the fiduciary might consider four options. First, the fiduciary could change the asset allocation from a 60/40, stock/bond mix to a 10/90, stock/bond mix. The obvious result of such a policy would be to remove nearly all of the growth potential from the portfolio, substantially diminishing the value of the remainder interest. Second, the fiduciary could seek higher yields with the bonds by increasing their maturity, perhaps investing in 30-year bonds. This, unfortunately, subjects the portfolio to increased interest rate risk. If interest rates rise, the value of long-term bonds will suffer a far greater decline in price than bonds with shorter-term maturities. Third, the fiduciary could seek higher yields by investing in bonds with lower credit qualities, so-called “junk” bonds. Junk bonds, of course, have the downside of increased credit or default risk. Finally, the fiduciary could seek higher yields by investing in higher dividend paying stocks like those of utility companies. This, however, might concentrate the portfolio too heavily in one sector of the market, perhaps violating the fiduciary’s duty to diversify.

As a result, Total Return investing with traditional trusts needlessly causes a conflict between the income and remainder beneficiaries. Without the ability to adjust the amount that can be distributed to the income beneficiary, Total Return investing is a moot point. A

² Sources are Standard & Poor’s, Bernstein and Federal Reserve. Yield of the 10-Year Treasury Bond and dividend yield of the S&P 500.

“Total Return Trust,” then, is a trust that (by trust instrument, law or fiduciary discretion) allows the fiduciary to invest for Total Return but also allows adjustment of the amount to be distributed to the current beneficiary, without regard to whether the distribution is composed of dividends, interest, rent, capital gain or otherwise. We do not, however, restrict the term “Total Return Trusts” to only those trusts that can distribute fiduciary accounting “income.” We include in the definition all trusts that allow for discretionary distributions of income and principal, since the practical result of making a discretionary distribution versus changing the definition of income are essentially the same.³ In our minds, any trust that is investing for “Total Return” is a “Total Return Trust.”

In an attempt to codify this concept of Total Return and thereby update traditional concepts of trusts to be in line with modern portfolio theory, several pieces of legislation or regulations have been enacted or issued, including:

1. Uniform Prudent Investor Act⁴ (hereinafter, “UPIA”);
2. Revised Uniform Principal and Income Act⁵ (hereinafter, “UPAIA”); and
3. Proposed Treasury Regulations under Section 643(b) of the Internal Revenue Code⁶ (hereinafter, “Proposed Regulations”).

In many ways, these three sets of rules provide a simple framework for evaluating and implementing Total Return Trusts. Essentially, implementing Total Return Trusts requires solving a three-variable problem:

1. What is the appropriate investment strategy for the trust, given the guidelines set out by the UPIA?
2. What should the appropriate distribution policy for the trust be, given the parameters of the UPAIA?
3. What portion of the income taxes should be paid by the trust and by the current beneficiary, given the parameters of the Proposed Regulations?

III. INVESTMENT STRATEGY: THE UNIFORM PRUDENT INVESTOR ACT

The UPIA codifies a number of principles and standards for prudent investing that had already been set out in the American Law Institute in its Restatement (Third) of Trusts.⁷ Although not all states have adopted some form of the UPIA, all states have some legislation

³ Although the income tax treatment of a discretionary distribution of principal could be different.

⁴ UNIF. PRUDENT INVESTOR ACT, 7B U.L.A. 280 (2000) [hereinafter “UPIA”]. Adopted by the National Conference of Commissioners of Uniform State Laws in 1994 and approved by the American Bar Association in 1995.

⁵ UNIF. PRINCIPAL & INCOME ACT, 7B U.L.A. 131 (2000) [hereinafter “UPAIA”]. Adopted by the National Conference of Commissioners of Uniform State Laws in 1997.

⁶ REG-106513-00 (Feb. 14, 2001), including, among others, Prop. Treas. Regs. §§ 1.643(a)-3, 1.643(b)-1, 1.651(a)-2(d), & 1.661(a)-2.

⁷ RESTATEMENT (THIRD) OF TRUSTS: PRUDENT INVESTOR RULE (1992).

or case law on the topic of trust investments.⁸ Many of the principles in such legislation and case law are incorporated, in some form, in the UPIA. As such, many of the considerations discussed in this section would nevertheless apply to trusts governed by a state that has not adopted the UPIA.

In addition to the general standard that fiduciaries shall use care, skill, prudence and diligence in making investment decisions, the UPIA made five fundamental changes to the prior standard:

1. The standard of prudence is applied to each investment, as that investment applies to the portfolio as a whole.⁹
2. The primary consideration for fiduciaries is finding the appropriate balance between risk and return for the trust.¹⁰
3. The fiduciary can invest in anything that plays an appropriate role in achieving the risk and return objectives of the trust and that also meets the other requirements of prudent investing.¹¹
4. The fiduciary has an obligation to diversify the investments unless the fiduciary determines that, because of special circumstances, the purposes of the trust are better served without diversifying.¹²
5. The fiduciary may delegate investment and management functions to a third party.¹³

In making these decisions, the UPIA provides a list of circumstances that the fiduciary should consider:

1. General economic conditions,
2. Possible effect of inflation or deflation,
3. Expected tax consequences of investment decisions or strategies,
4. Role that each investment plays within the overall trust portfolio,
5. Expected total return from income and from capital appreciation, and
6. Needs for liquidity, regularity of income, and preservation or appreciation of capital.¹⁴

⁸ Attached as Appendix A is a chart indicating which states have enacted some form of the UPIA.

⁹ UPIA § 2(b).

¹⁰ *Id.*

¹¹ *Id.* § 2(e).

¹² *Id.* § 3.

¹³ *Id.* § 9.

¹⁴ *Id.* § 2(c).

While a full discussion of the intricacies of the UPIA is beyond the scope of this article, certain mandates from the UPIA are clear. First, finding the appropriate risk and return tradeoff, given the objectives of the trust, is the primary consideration of the fiduciary. Second, unless directed otherwise, diversification of the investments is required. Finally, any analysis of potential investments must take into consideration the foregoing laundry list of circumstances.

IV. DISTRIBUTION POLICY: THE REVISED UNIFORM PRINCIPAL AND INCOME ACT

A. UNIFORM LAW

Underlying all of the legislation surrounding Total Return Trusts is the definition of “income,” as defined for fiduciary accounting purposes. As mentioned above, the drastic decline in yields on both stocks and bonds over the last 20 years has caused the fiduciary to choose between maintaining “income” levels to the current beneficiary by choosing an investment strategy that may not be optimal or investing for total return and limiting the amounts to be distributed to the current beneficiary. Robert B. Wolf, one of the top practitioners in this field, appropriately coined this as “the duty to disappoint equally.”¹⁵ Of course, the fiduciary may have some flexibility to make discretionary principal distributions in order to equitably adjust each beneficiary’s interest, but that presumes that the exercise of that discretion is within the limits set out in the trust instrument (health, support, maintenance, reasonable comfort, education, etc.).

Understanding that the law of trust investments had been modernized with the UPIA, the National Conference of Commissioners of Uniform State Laws drafted the UPAIA to integrate the principal and income rules with Total Return investing. The “equitable adjustment provision” of the UPAIA, Section 104(a), provides, in pertinent part:

A trustee may adjust between principal and income to the extent the trustee considers necessary if the trustee invests and manages trusts assets as a prudent investor, the terms of the trust describe the amount that may or must be distributed to a beneficiary by referring to the trust’s income, and the trustee determines . . . that the trustee is unable to comply with Section 103(b).¹⁶

Section 103(b) of the UPAIA, in turn, provides that in exercising this power to adjust:

[A] fiduciary shall administer a trust or estate impartially, based on what is fair and reasonable to all of the beneficiaries, except to the extent that the terms of the trust or the will clearly manifest an intention that the fiduciary shall or may favor one or more of the beneficiaries.¹⁷

¹⁵ Robert B. Wolf, *Defeating the Duty to Disappoint Equally: The Total Return Trust*, 32 REAL PROP. PROB. & TR. J. 45 (Spring 1997).

¹⁶ UPAIA § 104(a).

¹⁷ *Id.* § 103.

Under these provisions, for example, if the fiduciary of a trust that distributed all of its “income” annually was investing the trust for Total Return, and portfolio income is relatively small, then the fiduciary would be able to pay out amounts that would otherwise be considered principal in order to make up the “shortfall.” Conversely, the fiduciary could treat dividends, interest or rents as principal if the portfolio produced an unusually high rate of portfolio income but little or no capital growth.

In exercising the power to adjust, the UPAIA provides a list of factors that the fiduciary should consider, including, in pertinent part:

1. Nature, purpose, and expected duration of the trust,
2. Intent of the settlor,
3. Identity and circumstances of the beneficiaries,
4. Needs for liquidity, regularity of income, and preservation and appreciation of capital,
5. Assets in the trust,
6. Actual and anticipated effect of economic conditions on principal and income and effects of inflation and deflation, and
7. Anticipated tax consequences of an adjustment.¹⁸

Again, as with the UPIA, a fiduciary analyzing different distribution policies must take into consideration a daunting laundry list of circumstances.

B. VERSIONS ENACTED BY THE STATES

Currently, almost half of the states have enacted some version of the UPAIA, relying solely on this equitable adjustment power. A number of other states have adopted a dual approach to this problem. These states have adopted both the Section 104 equitable adjustment power and an option to convert to a unitrust, where the fiduciary would annually distribute a percentage of the fair market value of the trust assets (sometimes averaged over a three-year period in order to reduce the volatility of the distributions). Other states have enacted the UPAIA without the power of equitable adjustment but with the option of unitrust conversion, and a small number have declined to enact the UPAIA and only offer the unitrust conversion feature. Attached to this article (Appendix A) is a chart outlining which states, as of the date of this article, had enacted or had pending legislation regarding some form of the UPAIA or unitrust conversion. It is, however, instructive to see how some states interpret how the unitrust should be set, reflecting different views on what is considered “equitable” for purposes of Total Return Trusts.

¹⁸ See *id.* § 104(b).

New York's version of the UPAIA¹⁹ provides fiduciaries with the option of equitable adjustment under Section 104 or a unitrust percentage. If the unitrust conversion is chosen, the percentage is four percent with a three-year smoothing rule. Missouri, like New York, enacted a statute with both the power of equitable adjustment and the unitrust conversion. Unlike New York, however, Missouri provides that the unitrust percentage must be at least three percent but does not provide an upper limit to the percentage.

Delaware was the first state to enact a unitrust. Delaware's statute allows the fiduciary to convert an income trust to a unitrust or a unitrust to an income trust. The fiduciary has the right to set the rate between three and five percent. In making that determination the fiduciary is directed to take into account, among other things, the intent of the settlor, general economic conditions, projected current earnings and appreciation for the trust, and projected inflation and its impact on the trust.²⁰ The Delaware statute further grants the fiduciary the power to allocate short and long-term capital gains to "income" for purposes of determining distributable net income (as discussed in the next section).

New Jersey, on the other hand, adopted an unusual safe harbor approach to the UPAIA. In pertinent part, the statute provides:

A decision by a trustee to increase the distribution to the income beneficiary or beneficiaries in any accounting period to an amount not in excess of four percent, or to decrease that period's distribution to not less than six percent, of the net fair market value of the trust assets on the first business day of that accounting period, shall be presumed to be fair and reasonable to all of the beneficiaries.²¹

In other words, the statute simply creates a presumption that any adjustment upward to four percent and downward to six percent is reasonable. In other words, this is not a true safe harbor. On the other hand, it is an indication, however oblique, that New Jersey considers a four to six percent distribution amount to be reasonable.

V. TAXATION: PROPOSED TREASURY REGULATIONS UNDER § 643(B)

Both the UPIA and the UPAIA require the fiduciary to consider the expected tax consequences of any decision made under these acts.²² In the context of Total Return Trusts, the issue often comes down to how distributable net income ("DNI") will be defined. DNI serves two primary roles in the income taxation of trusts and their beneficiaries. First, it limits the amount of distribution deduction allowable to the trust or estate each year, and thus limits the amount taxable to the beneficiaries. Second, it determines the character of the income that is taxable to the beneficiaries.²³ Determining DNI for a trust requires first determining the taxable income of the trust and modifying that figure in a number of ways. With respect to capital gain, the Code provides, "[g]ains from the sale or exchange of capital

¹⁹ N.Y. EST. POWERS & TRUSTS LAW §§ 11-2.1 to 11-2.4.

²⁰ DEL. CODE ANN. tit. 12, § 3257(c) (2001).

²¹ N.J. STAT. ANN. § 3B:19B-4 (2001).

²² UPIA § 2(c)(3) & UPAIA § 104(b)(9).

²³ I.R.C. §§ 651(b), 652(a), 652(b), 661(a), 662(a) & 662(b).

assets shall be excluded to the extent that such gains are allocated to corpus and are not . . . paid, credited or required to be distributed to any beneficiary during the taxable year.”²⁴

A. THE CURRENT TREASURY REGULATIONS

Under the current Treasury Regulations, “gains from the sale or exchange of capital assets are ordinarily excluded from distributable net income and are not ordinarily considered as paid, credited, or required to be distributed to any beneficiary.”²⁵ In other words, absent certain requirements, capital gain is excluded from DNI and is taxable to the trust, rather than to the beneficiary receiving the distributions. Under the current Treasury Regulations, the three circumstances under which capital gains are included in DNI and thus taxable to the beneficiary are when gains are:

1. “[A]llocated to income under the terms of the governing instrument or local law by the fiduciary on its books or by notice to the beneficiary,”²⁶
2. “[A]llocated to corpus and actually distributed to beneficiaries during the taxable year,”²⁷ or
3. “[U]tilized (pursuant to the terms of the governing instrument or the practice followed by the fiduciary) in determining the amount which is distributed or required to be distributed.”²⁸

Generally, the Service has taken a relatively restrictive view on when capital gains will be included in DNI and thus taxed to the beneficiary. The Proposed Regulations, on the other hand, seem to expand the circumstances under which capital gain can be included in DNI.

²⁴ I.R.C. § 643(a)(3). See Treas. Reg. § 643(a)-3(a) regarding the treatment of capital gains and losses in the taxable year in which the trust or estate terminates.

²⁵ Treas. Reg. § 1.643(a)-3(a).

²⁶ Treas. Reg. § 1.643(a)-3(a)(1). With respect to when capital gain is “allocated to income,” the Service and the courts have ruled in a number of circumstances that capital gain can be included in DNI. See, e.g., *Crisp v. United States*, 34 Fed. Cl. 112 (Fed. Cl. 1995); Rev. Rul. 85-116, 1985-2 C.B. 284. The Service has even ruled that where the trust instrument gives the trustee the authority to apportion receipts and disbursements between income and principal and the trustee exercises the right to allocate capital gain to income, then capital gain will be carried out with DNI. T.A.M. 8728001 (Nov. 21, 1986).

²⁷ Treas. Reg. § 1.643(a)-3(a)(2). According to the Service, capital gain is “actually distributed” and carried out as DNI upon the occurrence of a “specified event.” A “specified event” includes when (i) gain is realized upon the sale of property required to be sold and distributed after a term of years; (ii) gain is realized in a year in which the trust instrument terminates; and (iii) allowable under the trust instrument and local law to a beneficiary entitled to a portion of the principal at a certain age. Rev. Rul. 68-392, 1968-2 C.B. 284. See also Treas. Reg. § 1.643-3(d), Ex. (3), (4) & (5).

²⁸ Treas. Reg. § 1.643(a)-3(a)(3). The Service has ruled with respect to this circumstance that in order for a practice to be established, it must be in a consistent and repeated fashion. See, e.g., T.A.M. 8506005 (Nov. 7, 1984).

B. THE PROPOSED TREASURY REGULATIONS

The Proposed Regulations, published February 14, 2001, reiterate the current presumption that capital gains are ordinarily excluded from DNI.²⁹ With respect to the exceptions to this rule, the Proposed Regulations provide, in pertinent part:

(b) Capital gains included in distributable net income. Gains from the sale or exchange of capital assets are included in distributable net income to the extent they are, pursuant to the terms of the governing instrument and applicable local law, or pursuant to a reasonable and consistent exercise of discretion by the fiduciary (in accordance with a power granted to the fiduciary by local law or by the governing instrument, if not inconsistent with local law)—

- (1) Allocated to income;
- (2) Allocated to corpus but treated by the fiduciary on the trust's books, records, and tax returns as part of a distribution to a beneficiary; or
- (3) Allocated to corpus but utilized by the fiduciary in determining the amount which is distributed or required to be distributed to a beneficiary.³⁰

For any of the exceptions to apply, one of two circumstances must exist. The first circumstance is when the terms of the governing instrument AND applicable local law mandate one of the exceptions to apply. The second circumstance is when one of the exceptions applies pursuant to a “reasonable and consistent” exercise of discretion by the fiduciary, according to a power granted under the governing instrument OR local law. The “reasonable and consistent” requirement is similar to the “practice followed by the fiduciary” requirement under the third exception in the current Treasury Regulations.³¹ Under the Proposed Regulations, it is clear that a “reasonable and consistent” practice can be established relatively easily, which is contrary to a number of rulings by the Service under the current Treasury Regulations.³² Examples (10) and (11) of the Proposed Regulations make it clear that a “reasonable and consistent” practice can be established at the outset as long as the fiduciary “intends” to follow such practice and such practice is strictly followed in future years. A number of commentators have criticized this latter requirement, rightly pointing out that making the fiduciary strictly follow the new practice is contrary to the UPIA and UPAIA. As one article points out:

²⁹ Prop. Treas. Reg. § 1.643(a)-3(a). This article limits the discussion of the Proposed Regulations as they affect Total Return Trusts. A full discussion of the Proposed Regulations and how they affect qualified terminable interest trusts, qualified domestic trusts, charitable remainder trusts and generation-skipping transfer exempt trusts is beyond the scope of this article. For excellent discussions of the foregoing please see Barbara A. Sloan, T. Randolph Harris & George L. Cushing, *When Income Isn't "Income"—The Impact of the New Proposed Regulations Under Section 643*, 94 J. TAX'N 325 (June 2001); Mark L. Ascher, *Subchapter J—Recent Developments Relating to the Income Taxation of Trusts and Estates*, 36th Annual Phillip E. Heckerling Institute on Estate Planning (2002).

³⁰ Prop. Treas. Reg. § 1.643(a)-3(b).

³¹ Treas. Reg. § 1.643(a)-3(a)(3).

³² See, e.g., T.A.M. 8105028 (Oct. 28, 1980), T.A.M. 8324002 (Feb. 16, 1983) & T.A.M. 8506005 (Nov. 7, 1984).

Even if the trustee can flip from one practice to the other once, the whole point of the Prudent Investor Act is to permit the trustee to make investments based on its own judgment regarding the rate of total return for the trust, not the needs of the income and remainder beneficiaries. If the trustee is required to continue a practice of consistently allocating capital gain to income, the trustee cannot exercise unfettered discretion to invest trust assets for the best total trust return, without regard to fairness to beneficiaries, any more than it can when required to allocate capital gain to principal. It is the inflexibility of the allocation which is the source of the difficulty.³³

At first blush, the first exception where gains are allocated to income seems to reiterate the same exception in the current Treasury Regulations. However, the current Treasury Regulations provide that the “allocated to income” exception applies pursuant to the terms of the governing instrument OR local law.³⁴ Further, the current Treasury Regulations do not require that any allocation to income be pursuant to a reasonable and consistent exercise of discretion. Despite these differences, it seems clear that the Service’s intention is that when capital gains are allocated to income under the UPAIA pursuant to the equitable adjustment power or a conversion to a unitrust, the gains will be included in DNI. The preamble to the Proposed Regulations provides, “[i]f, under the terms of the governing instrument or applicable local law, realized capital gains are treated as income to the extent the unitrust amount or the equitable adjustment amount exceeds ordinary income, capital gains so treated are included in distributable net income.”³⁵

Professor Jerry Kasner argues, however, that an equitable adjustment by a fiduciary does not automatically cause an allocation of capital gain to DNI. He writes:

The examples in the proposed regulations imply that the equitable adjustment or unitrust adjustment could have the effect of adding capital gains, or part of the capital gains, to the definition. However, neither the equitable adjustment statutes nor the unitrust statutes specifically refer to a reallocation of capital gains. If the trustee were simply to make an equitable adjustment by adding a portion of trust principal to trust income, that would not result in an allocation of capital gains to such an addition.³⁶

Professor Kasner goes on to reason that when a fiduciary has a discretionary power to make principal distributions, the equitable adjustment power may not be available because the UPAIA requires that it only be used when it is necessary to treat the beneficiaries impartially and equitably. As a result, since the first example of the regulations clearly points out that discretionary distributions of principal do not carry out DNI, the fiduciary must affirmatively do something more to have gains included in DNI. Further, Professor Kasner points out that in each of the examples regarding unitrust conversions, the Proposed Regulations point out

³³ Sloan, Harris & Cushing, *supra* note 29.

³⁴ Treas. Reg. § 1.643(a)-3(a).

³⁵ Preamble to REG-106513-00 (Feb. 14, 2001).

³⁶ Jerry A. Kasner, *Capital Gains: A New Definition for Income and Principal?*, 2001 TAX NOTES TODAY 45-33 (Mar. 5, 2001).

that the fiduciary took specific action to allocate capital gains to the distribution.³⁷ The actions in question seem to be the election under State law to convert to a unitrust and evidencing the treatment of gains to distributions on the Federal income tax return.³⁸ As a result, he concludes the Proposed Regulations do not automatically allocate capital gains to DNI; the “trustee must take action to ‘make it so.’” He writes:

In other words, the trustee must make a specific allocation of capital gains to income, either as an equitable adjustment to income, or in the unitrust situation, by specifying that the unitrust amount, at least in excess of ordinary income of the trust, is allocable to capital gains. While the new regulations seem to liberalize this, there should be express action to document the allocation, and it should follow the requirements of state law.³⁹

The second exception in the Proposed Regulations regarding capital gains allocated to corpus is a significant change from current Treasury Regulations. The current Treasury Regulations require that such gains be “actually distributed” for capital gain to be included in DNI. The “actually distributed” requirement has caused some confusion,⁴⁰ and the Proposed Regulations have disposed of this requirement and replaced it with the requirement that the fiduciary treat the gain as part of the distribution on the “books, records, and tax returns.”

The third exception in the Proposed Regulations provides that capital gain will be included in DNI when it is utilized in determining the amount of a distribution. In the current Treasury Regulations, this allocation had to be mandated by the governing instrument or pursuant to a “practice” followed by the fiduciary. As mentioned above, this has been replaced the “reasonable and consistent” requirement, which can be established in the entity’s first taxable year but has come under some criticism from commentators.⁴¹

Whether capital gain is automatically carried out with DNI under an equitable adjustment statute or a unitrust conversion or Professor Kasner is correct that something more is required of the trustee, the taxation of the distributions will dramatically impact the relative interests of the trust beneficiaries. Either way, Professor Kasner is exactly correct in underscoring how important it is for the fiduciary to explicitly state how gains will be treated in determining the distribution policy of the trust to the income beneficiary. Ultimately, it seems under the Proposed Regulations that the fiduciary has considerable latitude in determining whether the trust or the income beneficiary ultimately bears the burden of paying capital gains taxes on annual distributions.

VI. BRINGING IT ALL TOGETHER: IMPLEMENTING TOTAL RETURN TRUSTS

Implementing Total Return Trusts is then solving a three-variable problem: (1) the investment strategy or asset allocation for the trust; (2) the distribution policy to the current beneficiary; and (3) the taxation of the distributions. The purpose of this article is not to set

³⁷ *Id.*

³⁸ See Prop. Treas. Reg. § 1.643(a)-3(b), Ex. (9) to (11).

³⁹ Kasner, *supra* note 36.

⁴⁰ See *supra* note 26.

⁴¹ See Prop. Treas. Reg. § 1.643(a)-3(b), Ex. (4).

out the “right” answer for each of these variables, but more importantly, to set out a methodology by which each of these variables can be measured with or against each other. Moreover, this article also seeks to give context to how certain decisions can affect each of the beneficiaries.

Because the impetus behind Total Return Trusts is to free the fiduciary to invest the trust assets pursuant to modern portfolio theory, the logical first step is to determine the appropriate investment strategy. Under the UPIA, this involves making sure that the trust is appropriately diversified and that the investment strategy has the proper risk and return tradeoff, given the objectives of the trust. This article will discuss the diversification requirement and how risk and return are determined. However, as this article further discusses, the risk and return tradeoff in the context of trusts is much more complex. While asset allocation plays a pivotal role, how each beneficiary shares in the risk and return is also largely driven by the distribution policy adopted by the fiduciary.

In the second step, the fiduciary must determine the appropriate distribution policy to the current beneficiary. Prior to Total Return investing, distribution policies were based on portfolio income. The two primary types of Total Return distributions are (1) an annuity, a fixed amount, grown with or without inflation, and (2) a unitrust, a distribution based upon a percentage of the value of the trust assets, with or without smoothing. A fiduciary might adopt an annuity-based distribution policy where the trust’s primary, and perhaps sole, purpose is to provide for the needs and support of the current beneficiary. As such, the fixed amount, in all likelihood, would be grown with inflation and for purposes of this article, a fixed distribution without an inflation adjustment is ignored. On the other hand, a fiduciary might adopt a unitrust distribution policy where the trust’s purpose was not only to provide support for the current beneficiary but also to provide wealth or a legacy to the remainder beneficiary. The unitrust distribution policy perhaps is an understanding that trusts often have a dual purpose and that current and remainder beneficiaries should share in both the gains and the losses of the trust portfolio. Unfortunately for fiduciaries, there are an infinite number of distribution policies that can be considered. In this article we examine an additional distribution policy that is a hybrid of the annuity and the unitrust, a distribution equal to the greater of a fixed amount (grown with inflation) and a certain percentage. A fiduciary who adopts the “greater of” distribution policy is a fiduciary who must mimic, perhaps, what truly happens in reality. The trust is not only there to provide a modicum of support even when portfolio values are depreciating (the fixed amount), but it is also there to provide more when portfolio values are appreciating. This article will discuss how all of these distribution policies can affect the relative interests of the beneficiaries, in light of the risk and return characteristics of different portfolios.

Third, the fiduciary must determine how the distributions will be taxed to the beneficiary, whether pursuant to some ordering of tax items (income first, short-term gains second, long-term gains third, etc.) or not. This article will discuss how each of the beneficiaries is affected by different taxing schemes and then will discuss how the use of tax-exempt bonds affects the relative interests of the beneficiaries.

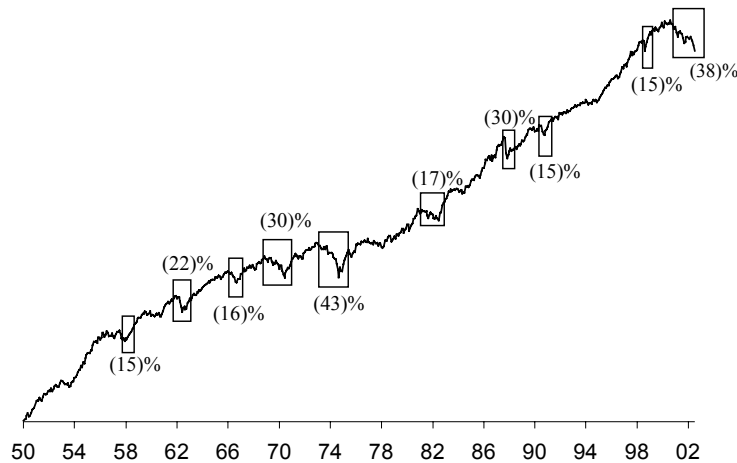
VII. UPIA: DIVERSIFICATION AND RISK AND RETURN WITH TRUSTS

A. THE ROLE OF STOCKS, BONDS AND OTHER ASSETS

As mentioned above, the UPIA mandates that the fiduciary find the appropriate risk and return balance, given the objectives of the trust, and ensure that the investments are appropriately diversified. Finding the right balance between risk and return while meeting the diversification mandate largely comes down to understanding the capital markets and asset allocation. While a complete discussion of the capital markets is beyond the scope of this article, a basic review of the behavior of its two primary asset classes, stocks and bonds, in investment planning is warranted.

While registering an 18% annual return during the 1980's and 1990's, stocks were widely regarded as the investment of choice—the steady rise in the S&P 500 led many to believe that stocks were a sure bet. However, the severe decline in the market averages since March of 2000 through September of 2002 has reminded investors of the perils of equity investing. Stocks have superior long-term returns but the short-term volatility of the asset class requires that investors have long time horizons.

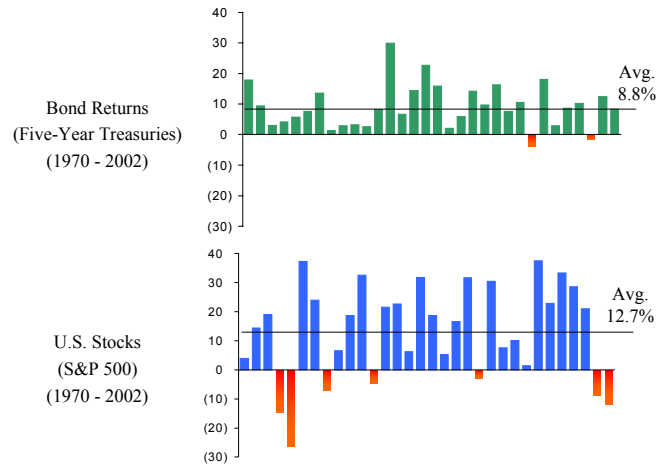
Growth with Major Declines in the Stock Market



As one can see, from a bird's eye point of view, the stock market, here the S&P 500, seems to have steady appreciation, but it did so with some very difficult times in the short.

Bonds, while not providing the growth potential of stock, have less volatility due to their stable income streams. As such, bonds serve to preserve capital, a goal that can be very important to investors who have short time horizons.

Bonds Have More Stability But Lower Return



As one can see, compared to bonds, stocks have greater return, but many instances of negative returns. So, in a simplistic sense, equity investors are the risk takers, having long time horizons and a tolerance to short-term risk. Bond investors are risk-averse, having short-term time horizons, requiring preservation of capital and stable returns. The following measures would thus be helpful in making understanding the tradeoffs between stocks and bonds:

(1971 through September 2002)

| | | <u>Bonds</u> | <u>Stocks</u> |
|----------------|----------------------|--------------|---------------|
| <u>Return:</u> | Annualized Return | 8.8% | 11.0% |
| <u>Risk:</u> | Worst 4-quarter loss | (9.2)% | (37.5)% |
| | Frequency of loss | 8.9% | 21.8% |

Diversification, on the other hand, is nothing more than the adage, “don’t put all of your eggs in one basket.” In other words, unless the governing instrument instructs the fiduciary to do so, the fiduciary has a duty not to invest, for example, solely in the stock of one company or the bond of one issuer. Certainly in the wake of Enron and other corporate disasters, the duty to diversify is apparent. Ultimately how much diversification a portfolio should have is up to the fiduciary and according to the objectives of the trust. Strictly considering stocks, a fiduciary may determine that a basket of 10 stocks is sufficient diversification for a portfolio. Other fiduciaries may determine that a portfolio should not only have at least 30 stocks, but the stocks should be diversified by style of investing (growth and value), geography (domestic and international stocks) and capitalization (small and large capitalization). Still other fiduciaries correctly conclude that investing in a broad mix of stocks is merely the first step in diversifying a portfolio. A fully diversified portfolio should also include several different asset classes. These asset classes are not assembled at random but instead combined based on their expected return, risk and correlation to each other. This was one of the insights of modern portfolio theory.

In a perfect world, all asset classes would have high return, low risk and a *low correlation* with other assets being considered for the portfolio. The term correlation is used to describe the degree to which two investments move together. The lower the correlation, the more independent the movement of the investments and the more risk is reduced in the portfolio. In other words, the lower the correlation between the assets in the portfolio, the less volatile the portfolio will be. For example, the classic balanced account usually involves some combination of stocks and bonds. The reason for this is that stocks have historically provided inflation-beating returns, while bonds have been the ballast to stabilize the portfolio

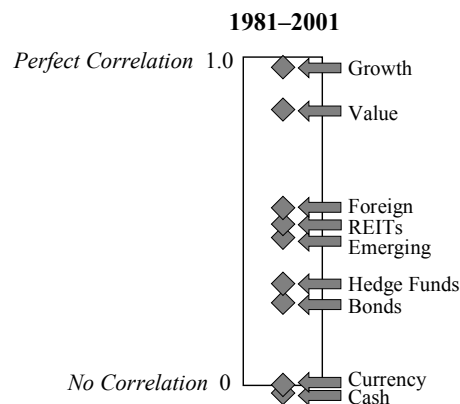
Bond Performance in Bear Markets

| | <u>U.S. Stocks</u> | <u>U.S. Bonds</u> |
|----------------|--------------------|-------------------|
| Dec 68–Jun 70 | (29.2)% | 2.2% |
| Jan 73–Sep 74 | (42.7) | 4.6 |
| Jan 77–Feb 78 | (14.2) | 1.5 |
| Dec 80–Jul 82 | (17.2) | 21.7 |
| Sep 87–Nov 87 | (29.6) | 2.3 |
| Jun 90–Oct 90 | (14.7) | 5.2 |
| May 98–Aug 98 | (13.4) | 4.7 |
| Mar 00–Sep 02 | (38.3) | 36.8 |
| Average | (24.9)% | 9.9% |

during difficult bear markets. This can be seen by looking at the historic performance of bonds during bear market periods for stocks.

To further enhance diversification, other asset classes should also be considered. The success of an investment as a diversifier can be measured by its correlation coefficient (or simply, correlation). Correlation is measured from 1 to -1; 1 implies perfect correlation and no diversification benefit; 0 implies no relationship; -1 implies an inverse relationship. The lower the correlation the better, but in practice most asset classes are positively correlated with one another. Fortunately, a correlation of .7 and below offers meaningful risk reduction benefits. Below is a correlation matrix of the most common asset classes:

Correlations with U.S. Stock Market



Ultimately, once one has determined what assets should be included in the portfolio, the next step is to set appropriate risk and return objectives for the portfolio, and weight the different asset classes in a manner that produces the best chance of meeting the objective. This is where diversification meets asset allocation.

B. ASSET ALLOCATION

As mentioned above, satisfying the risk/return and diversification mandates of the UPIA largely comes down to asset allocation. The chart below can be an extremely helpful tool in setting a portfolio's risk and return objectives and then building an asset allocation to achieve them. For example, from 1971 through the third quarter of 2002, equities returned 11.0% per year, and bonds returned 8.8% per year.⁴² Although stocks historically have returned more than bonds, the frequency and magnitude of loss for equities were much greater than bonds:

Risk and Return: What Is Your Risk Profile?

| | <i>Traditional Stock/Bond Mixes (1971 - Sep 2002)</i> | | | | | |
|--|---|----------------|----------------|----------------|----------------|----------------|
| | <u>0%/100%</u> | <u>20%/80%</u> | <u>40%/60%</u> | <u>60%/40%</u> | <u>80%/20%</u> | <u>100%/0%</u> |
| <i>RETURN:</i> | | | | | | |
| Annualized Return | 8.8% | 9.4% | 10.0% | 10.4% | 10.8% | 11.0% |
| Growth of \$1 Million | 14 | 18 | 21 | 23 | 26 | 27 |
| <i>RISK:</i> | | | | | | |
| Worst Consecutive 4-Quarter Loss | -9.2% | -11.2% | -18.2% | -25.0% | -31.4% | -37.5% |
| Frequency of Loss (% of time)* | 8.9% | 8.1% | 12.1% | 17.7% | 19.4% | 21.8% |
| Recent Bear Market (Cumulative Return Apr 2000-Sep 2002) | 28.6% | 10.2% | -6.1% | -20.5% | -33.2% | -44.4% |

Investors can gauge the appropriate asset allocation for themselves by measuring the trade-off between the return potential of higher equity allocations and the risk reduction of portfolios with bonds. They can then weight the assets in their portfolio accordingly. Of course, the work does not stop there. In order to achieve the effect of different asset combinations, the portfolios must be periodically rebalanced to maintain the intended risk-return characteristics.

There is of course more complexity in the asset allocation process for fiduciaries of Total Return Trusts. In fact, the process of setting the appropriate risk and return objectives and asset allocation illustrates one of the core dilemmas that fiduciaries have in managing

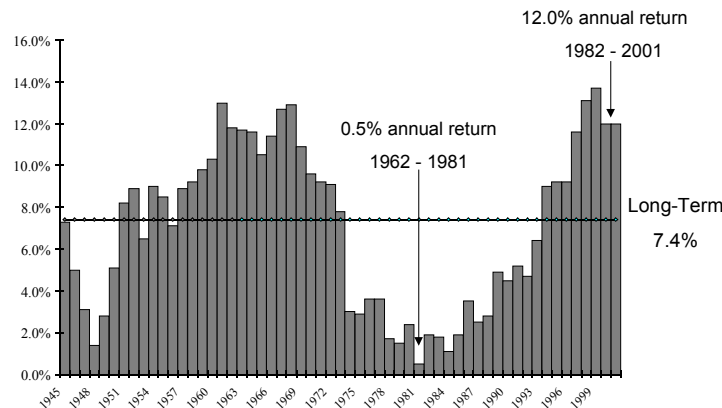
⁴² Equities are represented by 70% S&P 500 and 30% MSCI EAFE. Bonds are represented by the Lehman Aggregate Index. Lehman Aggregate returns are represented by CRSP 5-Year Treasury data from 1/1/71 through 12/31/73, Lehman Government/Corporate returns from 1/1/74 through 12/31/75 and the Lehman Aggregate returns from 1/1/76 through 12/31/01. MSCI EAFE is represented by EAFE GDP weighted, unhedged returns from 1/1/71 to 12/31/73 and the EAFE GDP weighted half-hedged returns from 1/1/74 to 12/31/01.

trust assets for total return. At first glance, it appears that an allocation that is heavily weighted in equities would represent the optimal investment strategy. The more equities in the portfolio, the greater the wealth would have grown over the past 30 years. In fact, this relationship has been maintained time and again through history. Simply, equities have outperformed bonds consistently over all thirty-year periods since 1926. The issue then is why isn't a high equity allocation optimal for all parties?

For the remainder beneficiary, with a long time horizon, it appears that a heavy weighting in equities is indeed appropriate. The remainder beneficiary does not rely on the trust to produce annual cash flows. Rather, the remainder beneficiary sees the trust as a long-term investment and will be able to tolerate short-term risk in exchange for extra return. The remainder beneficiary, therefore, is likely to favor more "risk taking" in the investment strategy. Unfortunately, the current beneficiary rarely has a time horizon and risk tolerance that is appropriate for such a strategy. A current beneficiary is generally concerned with generating a steady distribution flow, with as little downside risk as possible. A current beneficiary also wants to ensure that the income stream will continue so long as it is needed, generally for lifetime. As a result the current beneficiary by nature is "risk averse." Given the conflicting risk profiles of the beneficiaries, fiduciaries must develop a methodology for managing this conflict, within the objectives of the trust.

To properly address this problem, fiduciaries must come equipped with realistic expectations for risk and return. History can be used as a guide, but it is generally inadequate for proper planning. The charts below show rolling 20 year returns for the S&P 500 and for intermediate U.S. Treasury Bonds from 1926 through 2001, adjusted for inflation:

Returns Can Vary Widely Over the Long Term



The long-term inflation adjusted return for stocks is 7.4% and the long-term inflation adjusted return for bonds is 2.3%. However, as one can see, even over 20 year periods, the returns for both stocks and bonds have been significantly different than their long-term averages. In the case of stocks, the 1940's and 1950's resulted in exceptionally strong market returns, in an environment of very low inflation. The 1960's and 1970's were far more difficult, as inflation ran rampant and the economy was weak. This however preceded one of the longest and strongest bull markets in history, as the 1980's and 1990's brought

extraordinary stock market returns and wealth accumulation for investors. What is even more interesting is the unprecedented performance of Treasury Bonds over the last 30 years, registering returns far above their long-term average, as interest rates have steadily fallen from nearly 15% in the early 1980's. All of which is to say that even over long periods of time, one never actually experiences the "average" return.

Moreover, one cannot say with any certainty what the next 20 or 30 years of capital market returns will bring. It is however critical to plan with a realistic range of outcomes in mind when making the asset allocation decision for trusts (or drafting guidelines for such in the governing instrument). As a result, any analysis regarding asset allocation must take into account a full array of potential market returns, not simply the average. Furthermore, as discussed later in the article, risk and return in the context of trusts tell a very different story. With trusts, where the interests in the assets are often bifurcated between the current beneficiary and the remainder beneficiary, risk and return take on another layer of complexity. For example, the risk of the underlying portfolio can be borne by only one of them, rather than both, depending on the distribution policy of the trust. As a result, risk and return with trusts needs to be defined and quantified in different ways in order to make a fully informed investment decision.

C. THE PATH OF RETURNS AND STOCHASTIC MODELING

The asset allocation decision takes on even more complexity when one considers the distribution policy of the trust and the different "paths" returns may take. Consider the following example. A new trust is being established with \$1 million in assets and is expected to last just eight years. The fiduciary is considering investing entirely in stocks, with an expected return of 9% per year and an inflation rate of 3% per year. The fiduciary is considering two distribution policies. One is a unitrust, which would distribute 5% of the trust's market value to the income beneficiary each year. The other is an annuity trust, which would distribute \$50,000 per year, with the distributions adjusted for inflation each year. The chart below illustrates three separate potential outcomes for the returns of the trust, each compounding at a rate of 9% over the term of the trust.

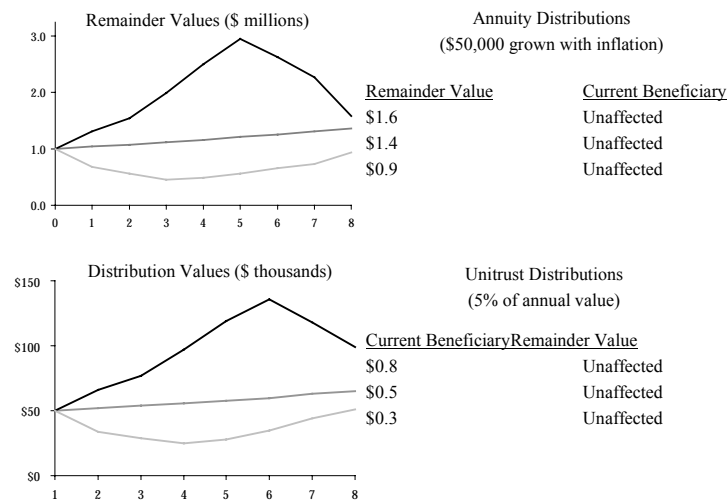
Same Returns Can Take Different Paths

| | <u>Average Return</u> | <u>Return Path 1</u> | <u>Return Path 2</u> |
|---------------------------|---------------------------|--------------------------|--------------------------|
| Year 1 | 9% | 38 | (28) |
| Year 2 | 9 | 23 | (12) |
| Year 3 | 9 | 33 | (9) |
| Year 4 | 9 | 29 | 21 |
| Year 5 | 9 | 21 | 29 |
| Year 6 | 9 | (9) | 33 |
| Year 7 | 9 | (12) | 23 |
| Year 8 | 9 | (28) | 38 |
| Compound Annual Return | 9% | 9% | 9% |

In the annuity example, the current beneficiary receives the same aggregate distributions regardless of the order of the market returns. However, the remainder

beneficiary's wealth is significantly different, depending on the order of the market returns. When strong markets occur in the early years (Path 1), the remainder beneficiary receives 60% more wealth than when the strong markets occur later in the period (Path 2). In the unitrust example, it is the income beneficiary who sees a wide dispersion in wealth. When strong markets occur early, the income beneficiary accumulates 170% more wealth than if strong markets occur late in the period. In this case, the remainder beneficiary's wealth is unchanged regardless of the path of returns. Interestingly, the two paths of returns are more realistic than one might think. Path 1 represents S&P 500 returns from 1995 through the third quarter of 2002, and Path 2 represents the same returns in reverse order.

The Path of Return Matters



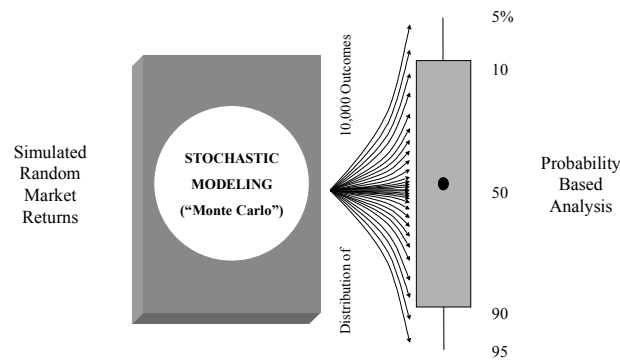
Fiduciaries should come away with three messages from this asset allocation discussion. First, the asset allocation decision within trusts is complicated by the different risk tolerances of trust beneficiaries. Fiduciaries will need to find the right balance based on the objectives of the trust. Second, planning based on past returns is an inadequate methodology for judging the feasibility of different asset allocations when dealing with trusts. The future may not be like the past, and even small differences in returns relative to expectations can have serious implications for trust beneficiaries. In addition to Total Returns, the paths of returns and volatility of returns must be considered. Higher than expected volatility and weak markets early in the term of a trust can result in unsatisfactory outcomes for all of the trust beneficiaries, even if return assumptions are met. Third, the asset allocation and distribution policy must be considered in tandem; different distribution and asset allocation policies can combine to pose very different risks to the trust beneficiaries.

So, given the inherent uncertainty in the capital markets and the added complexities that must be considered within a trust environment, how can fiduciaries feel confident in the decisions they make? In designing and implementing Total Return Trusts, fiduciaries must engage in a sophisticated planning process that is grounded in realistic expectations for the capital markets and measures the impact of their decisions on trust beneficiaries. Proper planning should incorporate the uncertainty of the capital markets by factoring in a wide range of outcomes for asset returns and the many potential paths that they may take. Any

planning tool must also reflect an understanding of how markets can move together, by capturing the interrelationships among assets classes, including correlation. Traditional planning, which is deterministic and relies mainly on historical average returns, is inadequate.

The newest generation of financial planning tools moves beyond historical averages and takes into account the paths of return and also the often random and unpredictable nature of the markets. Generically it is called stochastic or probabilistic modeling. The colloquial term is “Monte Carlo” modeling. For this article, we used a proprietary analytical tool that marries the benefits of stochastic modeling with our structural model of the capital markets.⁴³ We modeled Total Return Trusts with a variety of asset allocations, distribution policies and definitions of DNI. In each combination, 10,000 simulated markets were produced, giving a probability distribution of 10,000 outcomes. In each case, equity allocations are diversified by style and geography, and bonds are intermediate in duration.⁴⁴

Stochastic Modeling



With 10,000 different outcomes, the analytical outputs are necessarily probabilistic. In other words, instead of saying, for example, that the remainder value will be \$10 million, the answer would be that there is a 60% chance of the remainder being at least \$10 million. As a result, the use of probabilistic modeling in the context of determining the appropriate risk and return strategy often comes down to levels of confidence. If, for example, a goal is to have a very low probability of depleting the trust assets, what level of confidence is appropriate, less than a 20% or 10% chance?

⁴³ Bernstein’s proprietary capital markets engine and wealth forecasting model uses proprietary research and historical data to create a wide range of possible market returns for many asset classes over the coming decades, following many different paths of return. The model takes into account the linkages within and among different asset classes in the capital markets and incorporates an appropriate level of unpredictability or randomness for each asset class.

⁴⁴ The allocation to stocks is 35% U.S. Value, 35% U.S. Growth, 25% Developed International, and 5% Emerging Markets. The allocation to bonds is 100% intermediate duration. The source of the data is Bernstein, based on Bernstein’s estimates of the range of returns for the applicable capital markets over the next 30 years. The data does not represent any past performance and is not a promise of actual future results. See Assumptions and Notes on the Wealth Forecasting System for further details, attached hereto as Appendix B.

However, having a sophisticated financial planning model does not alone provide all of the tools needed to successfully implement Total Return Trusts. A tool is only helpful if it can answer the right questions, the questions that a grantor would want answered: how the assets should be invested, how they should be distributed and how the income tax liability should be apportioned? How confident can the grantor be that the current beneficiary receives the support that is needed? What are the chances that the trust assets will be depleted within 20 or 30 years? Can a plan be set so that the beneficiaries share equally in the assets? Answering these types of questions is extremely helpful in understanding whether a trust is properly structured to meet the true objectives of the grantor.

D. SETTING RISK AND RETURN OBJECTIVES FOR TRUSTS

With all of this as a background, how then should fiduciaries think about risk and return for trusts? Obviously the answer to this question is highly dependent on the objectives of the trust. For example, a QTIP Trust that is for the benefit of a surviving spouse who is 70 years old and who relies solely on the distributions for his or her support has a very different objective than a GST exempt or dynasty trust. The QTIP Trust in this example would necessarily have a very short time horizon, mandating a portfolio with as little volatility as possible and requiring a high degree of certainty in making distributions that are sufficient to meet the spouse's support needs. As a result, the QTIP Trust, in all likelihood would have a diversified portfolio, with a substantial portion in bonds. The GST exempt trust, on the other hand, would have a very long time horizon, given that one of its primary purposes is to appreciate over many generations. Assuming the current beneficiaries have other sources of support, there would be very few current distributions from the trust, and the need for liquidity and regularity of income would be very small. As a result, the GST exempt trust would have a diversified portfolio of primarily equities. These two examples are extremes, but they provide an initial framework for setting risk and return objectives for a particular trust, as illustrated below:

| Type of Trust | Primary Beneficiary | Need for Regularity of Income | Time Horizon | Portfolio Characteristics |
|------------------|---------------------|-------------------------------|---|---------------------------------------|
| QTIP Trust | Spouse—70 yrs. | Very high | Life expectancy (approx. less than 14 yrs.) | Low risk, low volatility (bonds) |
| GST Exempt Trust | Remote descendants | Very low | Very Long (approx. 100 yrs.) | Higher risk, higher return (equities) |

Typically when setting an investment strategy or drafting an investment policy statement, the fiduciary sets the return objective and the risk tolerance for the portfolio. For example, the fiduciary might assert that the annual return objective for the trust should be 9% and that the portfolio should not experience more than a 25% loss in any given year. With a 9% return, the fiduciary reasons that the portfolio can pay 2% of the return in taxes per year, 3% in order to keep up with inflation and 4% to be paid out to the current beneficiary, enough to maintain his or her current lifestyle needs. Moreover, this will leave the inflation-

adjusted value of the portfolio intact for the remainder beneficiary. So long as the portfolio does not drop by more than 25% in a year, the fiduciary feels that the earnings distributed to the current beneficiary will be sufficient. Based upon historical returns for the last 30 years, the fiduciary's plan seems feasible. In fact, one might even argue that it is conservative. A portfolio with as much as 80% in bonds would have provided a 9% return and would have seen its worst 4 quarter-annual decline total only 11.2%. In fact, a portfolio with 60% in stocks and 40% in bonds would have provided a return in excess of 10% and would have seen its worst 4 quarter-annual decline total 25%.⁴⁵

However, as discussed above, just looking at these return patterns does not tell the whole story. If we adjust our expectations by using returns over the very long-term (1926 to 2001) a 60/40, stock/bond mix will only get us a return of 8.6%.⁴⁶ And what if returns over the next 20 or 30 years are actually lower than the long-term history? What if the portfolio is impacted by weak markets early on and only compounds at 7.0% per year? What will happen to the current beneficiary's income stream? Will the remainder beneficiary have anything left over?

In setting investment objectives for a trust, a fiduciary must think in terms of more than just the return and risk potential for the assets in the trust. This says very little to the current beneficiary about what he or she can expect to receive each year, after taxes and inflation. The fiduciary must further quantify how the investments in the trust affect the risk tolerances and return objectives of each of the beneficiaries. One way of doing this is to establish clear goals for return and risk for both parties. Using a stochastic or probabilistic framework, we can quantify the likelihood of meeting the goals of the beneficiaries with different asset allocations. If the trust requires one of the beneficiaries to be favored over the other, the fiduciary can require a higher probability threshold for meeting that beneficiary's goal. For example, the risk tolerances and return objectives of a current beneficiary could be quantified by answering the following:

1. What range of after-tax distributions can the current beneficiary expect each year?
2. What range of after-tax distributions can be expected in inflation-adjusted terms?
3. What is the probability that the after-tax distributions will fall below a certain budget?

⁴⁵ Equities are represented by 70% S&P 500 and 30% MSCI EAFE. Bonds are represented by the Lehman Aggregate Index. Lehman Aggregate returns are represented by CRSP 5-Year Treasury data from 1/1/71 through 12/31/73, Lehman Government/Corporate returns from 1/1/74 through 12/31/75 and the Lehman Aggregate returns from 1/1/76 through 12/31/01. MSCI EAFE is represented by EAFE GDP weighted, unhedged returns from 1/1/71 to 12/31/73 and the EAFE GDP weighted half-hedged returns from 1/1/74 to 12/31/01.

⁴⁶ The allocation to stocks is 35% U.S. Value, 35% U.S. Growth, 25% Developed International, and 5% Emerging Markets. The allocation to bonds is 100% intermediate duration. The source of the data is Bernstein, based on Bernstein's estimates of the range of returns for the applicable capital markets over the next 30 years. The data does not represent any past performance and is not a promise of actual future results. See Assumptions and Notes on the Wealth Forecasting System for further details, attached hereto as Appendix B.

4. What is the probability that over the term of the trust the after-tax distributions will be lower than the initial distribution (in inflation-adjusted terms)?
5. What is the probability of a year-over-year decline of more than 10% or 20%?
6. What is the probability that the distributions will fall, from their highest peak, by more than 30% or 40%?
7. What is the probability that the distributions will cease altogether, depleting all of the assets in the trust?

The risk tolerances and return objectives of the remainder beneficiary, on the other hand, could be quantified by answering a set of other questions.

1. What range of remainder values can be expected given the term of the trust?
2. What range of remainder values can be expected in inflation-adjusted terms?
3. What is the probability of maintaining the current value of trust assets?
4. What is the probability of maintaining the current value of the assets in inflation-adjusted terms?
5. What is the probability of depletion of all of the assets?

Finally, given that current and remainder beneficiaries essentially share the assets in the trust, it is important to quantify what share of the total wealth each beneficiary can be expected to receive. This is a concept that the IRS explicitly acknowledges in valuing life estates (or annuity distributions) and remainders in Section 7520 of the Internal Revenue Code. For example, according to Section 7520, the proportionate shares of a life estate holder and of the remainder beneficiary are:

| Life Estate Beneficiary: 55 Years Old | | |
|---------------------------------------|--------------------|------------------|
| <u>Section 7520 Rate</u> | <u>Life Estate</u> | <u>Remainder</u> |
| 4.0% | 58.5% | 41.5% |
| 5.0% | 65.6% | 34.4% |
| 6.0% | 71.1% | 28.9% |
| 7.0% | 75.4% | 24.6% |

| Life Estate Beneficiary: 70 Years Old | | |
|---------------------------------------|--------------------|------------------|
| <u>Section 7520 Rate</u> | <u>Life Estate</u> | <u>Remainder</u> |
| 4.0% | 39.4% | 60.6% |
| 5.0% | 45.7% | 55.3% |
| 6.0% | 51.0% | 49.0% |
| 7.0% | 55.5% | 44.5% |

As one can see, the actual value of each beneficiary's interest is highly dependent upon the Section 7520 Rate and the life expectancy of the current beneficiary. We will see later in this article that the time horizon of the trust (or life expectancy of the current beneficiary) has a significant impact on each beneficiary's share of the total wealth. However, the Section 7520 Rate does not reflect the actual returns that the trust assets may have. Returns may be much higher or lower than assumed by the Section 7520 Rate in effect at the time of the calculation. Furthermore, this calculation ignores the paths of return, different distribution policies and income taxes. As such, this calculation is of limited utility to the fiduciary. On the other hand, with probabilistic modeling, one is able to quantify all of these variables and arrive at a range of percentage wealth passing to each beneficiary. For example, if a fiduciary adopts a 5% unitrust distribution policy and the time horizon is 30 years, given a 60% stock and 40% bond allocation, the current beneficiary's share of the total wealth is approximately 52% to 75%. On the other hand, if the same trust has a time horizon of 10 years, the current beneficiary's share of the total wealth is approximately 26% to 40%.

Once all of the foregoing questions or sensitivities are answered, the issue then becomes given a particular asset allocation can we achieve all of the foregoing objectives or goals with a sufficient level of confidence. What one finds is that often absolutely satisfying all parties may not be possible, and the fiduciary must resort to the best available choices given the objectives of the trust.

VIII. DISTRIBUTION POLICIES: ANNUITY, UNITRUST OR SOMETHING ELSE?

A. ANNUITY DISTRIBUTION POLICIES

As mentioned, a fiduciary or grantor who adopts an annuity distribution is primarily concerned with providing for the support of the current beneficiary without any downside risk to the beneficiary. This works particularly well for the current beneficiary so long as the time horizon is not too long and the spending level is not too high. High spending levels and long time periods may result in the trust depleting its assets over time to meet the annual annuity distributions. This obviously has catastrophic results for both the current beneficiary and the remainder beneficiary.

Given the annuity beneficiary's distaste for risk and the lack of upside potential in an annuity trust, one might suspect that a high allocation to bonds would be preferred. In point of fact, over long terms, high allocations to bonds may not provide the growth necessary to sustain the value of the annuity. For example, a \$10 million trust invested in a 20/80, stock/bond allocation that pays a \$400,000 annuity (4% of the initial value, before-tax and grown with inflation) actually still has a 1 in 20 or 5% chance of depleting all of the assets over a 30-year period. Obviously the higher the annuity distribution, the higher the probability of depletion. If the annuity is \$600,000, the probability of exhausting the assets in 30 years is 88%. The need for a higher allocation to equities is evident in both of these instances because of its higher return.

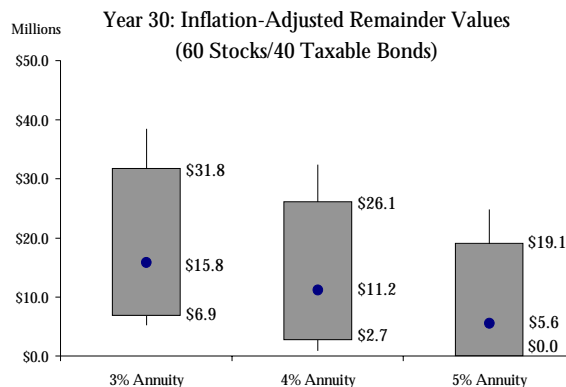
If the assets had been invested, at the other extreme, 100% in a diversified portfolio of equities, the probability of depletion with the \$600,000 annuity drops from 88% to 42%. Counter-intuitively, however, the probability of depletion with a \$400,000 annuity and a 100% equity portfolio actually goes up from 5% to 7%. This is due to the path of return.

When a portfolio experiences downside volatility, the fixed annuity will constitute a larger proportion of the assets as values fall, thereby making the losses permanent and that much more difficult to recover. In other words, the high return of equities must be balanced, in the annuity context, with its higher volatility. A more balanced portfolio with lower expected return but also lower volatility is often the best option. For example, a 60/40, stock/bond allocation drops the probability of depletion with a \$400,000 annuity to 3%. That being said, lowering the volatility of the portfolio only goes so far. Once annuities go above 4% or 5% of the initial value, the probability of depletion is driven more by the size of the annuity. Consider the following probabilities of depletion for different annuities and asset allocations in the following chart:

| Probability of Depletion Over A 30-Year Period | | | |
|--|--------------------|--------------------|--------------------|
| | 100 Stocks/0 Bonds | 60 Stocks/40 Bonds | 20 Stocks/80 Bonds |
| 3% Annuity | <2% | <2% | <2% |
| 4% Annuity | 7% | 3% | 5% |
| 5% Annuity | 21% | 21% | 38% |
| 6% Annuity | 42% | 51% | 88% |

As one can see, a moderate annuity⁴⁷ and a balanced asset allocation can minimize the risk to the current beneficiary. In fact, with moderate annuity percentages and a globally diversified balanced portfolio, the risk to the current beneficiary can be nearly eliminated. Most of the portfolio risk is shifted to the remainder beneficiary, who bears both the upside and downside of the capital market returns, as one can see in the following chart:

Remainder Beneficiary Bears Risk & Return

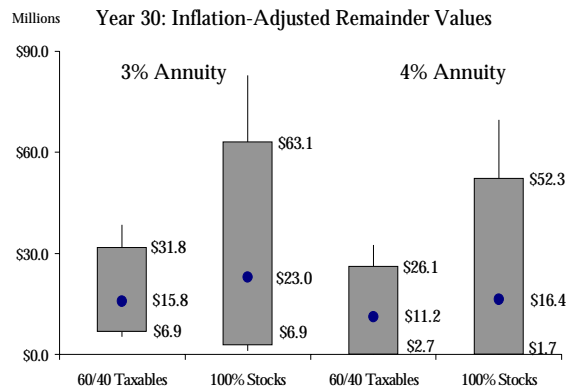


These charts are called box-and-whisker charts. The center of each box is the median or the 50% level of confidence. The two ends of the box on each side of the median contain 80% of the results (8,000 of the 10,000 simulated results) and as such represent the 10% (top figure) and 90% (bottom figure) levels of confidence. The whiskers protruding from each side of the box represent an additional 5% of the probabilities each; as such they represent the 5% and 95% levels of confidence. As this chart shows, at the median, only annuity distributions of

⁴⁷ All annuities in this article may be expressed as a percentage of the initial value of the portfolio, but such fixed amount is grown with inflation.

3% and 4% can substantially grow the inflation-adjusted value of the trust (\$10 million) over a 30-year period. Strikingly, however, not even an annuity distribution as low as 3% has a 90% confidence level of maintaining the inflation-adjusted value. In fact, even with a portfolio of all equities, the remainder values at the 90% percentile are lower than a balanced portfolio, but the medians are significantly higher, showing why remainder beneficiaries generally favor equities:

Equities Benefit Remainder Values



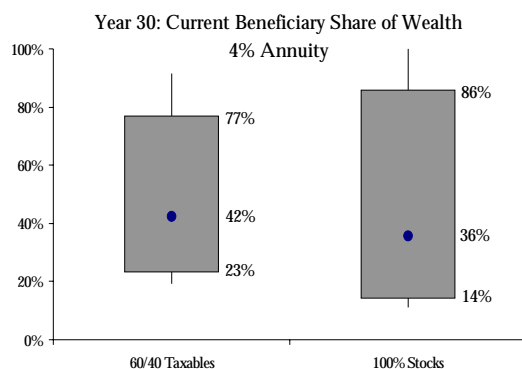
Though equities have shown significant volatility in the short-run, they have been particularly resilient in the long run. In fact, from 1926 to 2001, the S&P 500 has shown remarkable consistency, never registering a real return (total return above inflation) less than 4.3% over any rolling thirty year period.⁴⁸ Despite this, you will notice above that the 90% confidence figure for the 4% annuity is actually lower for 100% equities than for the 60/40, stock/bond allocation. Again illustrating how important minimizing the volatility of the portfolio can be when fixed distributions are being made from the portfolio.

What is also clear from the chart above is the wide range of outcomes that can be experienced by the remainder beneficiary. Fixed distributions firmly place the risk and return of the investment portfolio on the remainder beneficiary, making their expected wealth very difficult to forecast with precision. This poses difficulties for those grantors whose interest is to allow for each beneficiary to enjoy a certain share of the trust assets. For example, a trust distributing a 4% annuity will see the beneficiary's relative interest vary widely, and it becomes increasingly wider as the commitment to equities increases.⁴⁹

⁴⁸ The sources of this data are Roger G. Ibbotson & Rex A. Sinquefeld, *Stocks, Bonds, Bills, and Inflation: Year-by-Year Historical Returns*, University of Chicago Press Journal of Business (January 1976), Standard & Poor's and Bernstein.

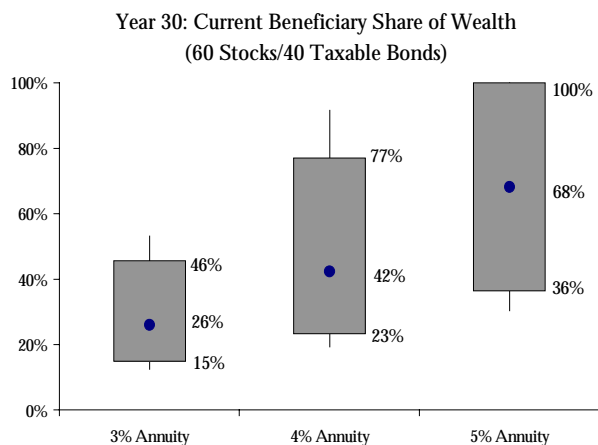
⁴⁹ The share of wealth of either the current beneficiary or the remainder beneficiary is determined by the inflation-adjusted wealth received by the beneficiary in question, divided by the total wealth created by the trust assets, in inflation-adjusted terms.

Share of Wealth Is Wide, More So With Equities



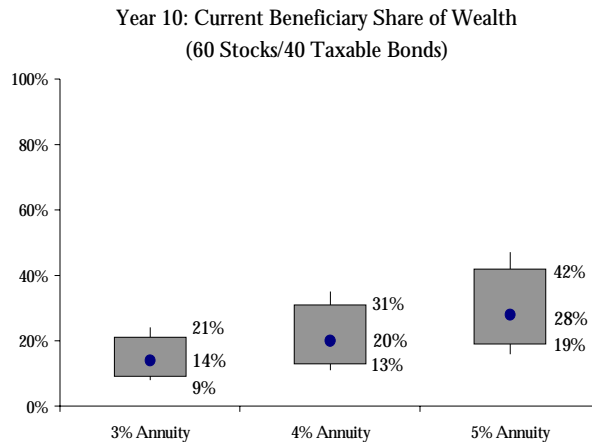
The foregoing chart measures the inflation-adjusted wealth received by the remainder beneficiary and the current beneficiary against the total wealth created by the trust assets. While the range of shared wealth is large for the remainder beneficiary, they are necessarily large also for the current beneficiary, especially when the size of the annuity distribution is high:

Wider Still with Higher Annuities



As one might expect, the time horizon of the trust drastically affects the share of wealth. The foregoing chart assumed a time horizon of 30 years. If the time horizon of the trust is 10 years, on the other hand, the share of wealth drastically changes:

Time Horizon Drastically Changes Share of Wealth



B. UNITRUST DISTRIBUTION POLICIES

Dimensioning risk and return with unitrust distribution policies is a much more complex story than it is for annuities. When a fiduciary chooses a unitrust distribution policy, it is an understanding that the trust has a dual purpose, with the current and remainder beneficiaries sharing in both the gains and the losses of the trust portfolio. There have been many proponents of unitrust distribution policies,⁵⁰ in addition to allowing the fiduciary to invest for Total Return, the primary benefit of choosing a unitrust distribution policy (sometimes referred to as a “private unitrust”) is that it eliminates the conflict between the current beneficiary and the remainder beneficiary. With a unitrust, the argument goes, a fiduciary is free to invest for Total Return, and when trust values increase, both the distributions and the remainder value increase. If trust values decrease, both beneficiaries share proportionately in such loss. As a result, the interests of the current beneficiary and the remainder beneficiary are in line with each other.

In the simplest form, a unitrust distribution is calculated as a fixed percentage of the fair market value of the trust assets each year. There are two obvious results of this type of formula: first, there is no theoretical risk of depleting all of the assets;⁵¹ and second, the annual payouts will fluctuate with the market value of the trust. Obviously, the first and perhaps most important decision is determining which percentage distribution is equitable given the objectives of the trust, because this will determine the size of the distributions over time and the relative interests of the current and remainder beneficiaries. As the following

⁵⁰ See generally William Hoisington, *Modern Trust Design: New Paradigms for the 21st Century*, 31st Annual Phillip E. Heckerling Institute on Estate Planning (1997); Wolf, *supra* note 15; Robert B. Wolf, *Estate Planning With Total Return Trusts: Meeting Human Needs and Investment Goals Through Modern Trust Design*, 36 REAL PROP. PROB. & TR. J. 169 (2001); Joel C. Dobris, *Why Trustee Investors Often Prefer Dividends to Capital Gain and Debt Investments to Equity—A Daunting Principal and Income Problem*, 32 REAL PROP. PROB. & TR. J. 45 (1997).

⁵¹ In reality, however, even with a unitrust distribution policy, the trust could deplete all of its assets. This can occur when the distribution amount is determined when the trust assets are very high, but when the time comes to actually make the distribution (often three, six or nearly twelve months after the valuation date), trust values have declined sharply, thereby distributing a disproportionate amount of the trust assets at that time.

chart shows, lower payouts have a greater probability of increasing over time, as more assets are available to be reinvested for future appreciation:

| Probability of Maintaining Inflation-Adjusted Amount of Initial Distribution | | |
|---|-----------------------|-----------------------|
| Unitrust Percentage | 10 th Year | 30 th Year |
| 3% | 66% | 77% |
| 4% | 57% | 57% |
| 5% | 45% | 31% |
| 6% | 33% | 11% |

You will note that a 4% unitrust distribution has an equal probability of maintaining the initial distribution over 10 and 30 years. In other words, for a 4% distribution, a 60/40, stock/bond portfolio generates enough return to sustain the real value of the portfolio (and therefore the distribution) over time. Perhaps it is not by coincidence that states like New York, Pennsylvania and Washington have adopted 4% unitrust conversion rules.

This data however does not truly dimension the actual volatility of the after-tax distributions. The foregoing data is based upon the probability that the distributions in just the 10th and 30th years are greater than the first distribution, in after-tax and inflation-adjusted terms. On the other hand, the probability that the unitrust distributions will be maintained during the entire 10 or 30 year period is shockingly low:

| Probability of Maintaining Inflation-Adjusted Amount of Initial Distribution | | |
|---|-------------------------|-------------------------|
| Unitrust Percentage | During Initial 10 Years | During Initial 30 Years |
| 3% | 27% | 16% |
| 4% | 14% | 5% |
| 5% | 12% | <2% |
| 6% | 9% | <2% |

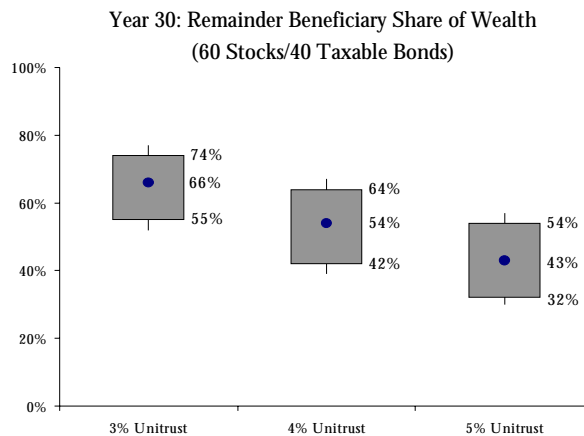
In other words, even at very low unitrust percentages, it is not reasonable to expect that size of the initial distribution will be maintained each year over the entire term of the trust. This is primarily due to the underlying volatility of the 60% stock and 40% bond portfolio. In cases where the current beneficiary relies on the trust distributions as their sole source of income, the income volatility created by a unitrust may make it difficult to maintain their current standard of living.

As one would expect, low unitrust percentages favor the remainder beneficiary, and high unitrust percentages favor the current beneficiary. Consider the following chart that shows the median values that each beneficiary would receive over a 30-year period.

| Inflation-Adjusted Wealth to Beneficiaries Median Values (\$ Millions) | | |
|---|---------------------|-----------------------|
| Unitrust Percentage | Current Beneficiary | Remainder Beneficiary |
| 3% | \$5.5 | \$8.9 |
| 4% | 6.9 | 7.1 |
| 5% | 8.2 | 5.5 |
| 6% | 9.2 | 4.1 |

As mentioned above, the primary advantage of a unitrust distribution policy is that the interests of the current and remainder beneficiaries are better aligned. Each beneficiary shares proportionately in the risk and return of the underlying portfolio, which can be seen when one examines the relative share of wealth that, for example, the remainder beneficiary receives from the trust.

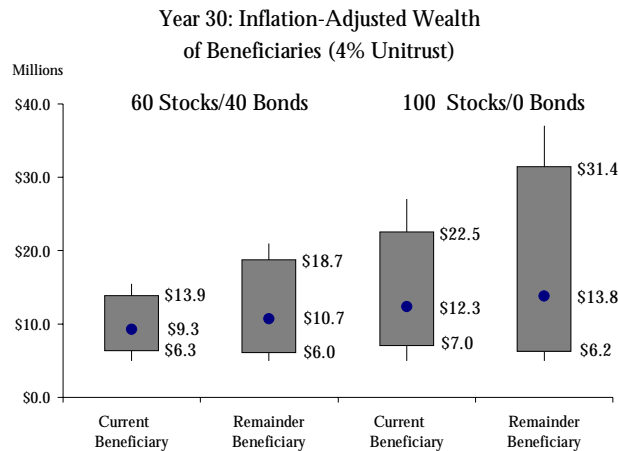
Proportional Sharing of Wealth



One should note immediately how relatively tight the ranges of the percentages are in comparison to the ranges with the annuity distributions. This is direct evidence that the current beneficiary shares proportionately in the investment returns. One should also note that the median share of wealth at the 4% unitrust, the percentage adopted by New York and other states, is approximately 50% (each beneficiary sharing equally in the total wealth of the trust).

When a unitrust distribution policy is adopted, both beneficiaries share the common goal of growing the trust assets, which will elevate the distributions to the current beneficiary over time and increase the amount that ultimately passes to the remainder beneficiaries. Consider the following chart showing the inflation-adjusted wealth passing to both the current and remainder beneficiaries at a 60/40 allocation and a 100% equity allocation:

Aligning Both Beneficiaries for More Equities



As one can see, higher equity allocations can increase the wealth accumulated by both parties. Interestingly, however, it accomplishes this without significantly changing each party’s relative interests in the total wealth created by the trust. That is, although the amount passing to each of the beneficiaries changes as the asset allocation changes, the proportion of wealth enjoyed by each party stays relatively constant.

If higher equity allocations increase cumulative wealth to both beneficiaries but not the relative interests among them, then should the asset allocation always be 100% equities? The obvious answer is no, because the “risk” of a highly volatile portfolio like 100% equities can be unbearable to the current beneficiary whose distributions are fluctuating as market values rise and fall. Consider the following chart showing the probability of a 10% and 20% year-over-year decline during the first 10 years of the trust at three different asset allocations:

| 4% Unitrust Probability of Year-Over-Year Declines 10 Years | | | |
|---|-------------|----------------------|----------------------|
| | 100% Stocks | 60% Stocks/40% Bonds | 20% Stocks/80% Bonds |
| 10% Decline | 26% | 15% | 8% |
| 20% Decline | 13% | 4% | <2% |

Also consider the following chart showing the probability of peak-to-trough declines during the first 10 years of the trust at three different asset allocations.

| 4% Unitrust Probability of Peak-To-Trough Declines 10 Years | | | |
|---|-------------|----------------------|----------------------|
| | 100% Stocks | 60% Stocks/40% Bonds | 20% Stocks/80% Bonds |
| 20% Decline | 83% | 77% | 48% |
| 30% Decline | 61% | 42% | 21% |
| 40% Decline | 39% | 29% | 5% |

As one can see from the previous charts, year-over-year declines and peak-to-trough declines are extremely high when the asset allocation is 100% equities. With high equity commitments, in bear markets the distributions to the current beneficiary can decline to unacceptable levels. While there is risk for the remainder beneficiary because sustained poor markets will reduce the ultimate value of the remainder, given enough time, the equity markets have historically recovered. The saving grace for the remainder beneficiary is that with a unitrust distribution policy, as portfolio values fall so do the distributions. As a result, the distributions themselves will not further exacerbate falling markets as much as annuities will.

C. SMOOTHING RULES

As one can see, the obvious downside to using a strict unitrust distribution policy is that the annual payouts will fluctuate with portfolio values. This generally will encourage the fiduciary to choose a less volatile portfolio (generally one that has a significant allocation to bonds and consequently a lower expected return). The reason for this is that despite their long track record of success, stocks have experienced many painful setbacks, as witnessed by the most recent bear market. As adopted by states like New York, “smoothing” can help mitigate the annual volatility experienced by the current beneficiary. Generally, with smoothing, the distribution each year is based on the average market value of the portfolio over the previous three years, as adopted by New York, or some other number of years. As seen below, smoothing does in fact reduce the probability of year-over-year declines and peak-to-trough declines:

| 4% Unitrust and 60% Stock/40% Bonds Probability of Year-Over-Year Declines 10 Years | | | |
|---|--------------|------------------|------------------|
| | No Smoothing | 3 Year Smoothing | 5 Year Smoothing |
| 10% Decline | 22% | 10% | <2% |
| 20% Decline | 8% | <2% | <2% |

| 4% Unitrust and 60% Stock/40% Bonds Probability of Peak-To-Trough Declines 10 Years | | | |
|---|--------------|------------------|------------------|
| | No Smoothing | 3 Year Smoothing | 5 Year Smoothing |
| 20% Decline | 77% | 42% | 29% |
| 30% Decline | 42% | 16% | 9% |
| 40% Decline | 15% | 4% | <2% |

As one can see, the longer the smoothing period, the more stable the distributions are to the current beneficiary. As such, smoothing plays an increasingly important role as the trust’s commitment to equities increases, with longer smoothing periods recommended for more volatile portfolios. It can also be very important with high distribution percentages, which are more likely to experience large declines in the distribution over time. Consider the following peak-to-trough probabilities for a 6% unitrust and a 100% equity portfolio:

| 6% Unitrust and 100% Equities Probability of Peak-To-Trough Declines 10 Years | | | |
|---|--------------|------------------|------------------|
| | No Smoothing | 3 Year Smoothing | 5 Year Smoothing |
| 20% Decline | 86% | 65% | 42% |
| 30% Decline | 65% | 35% | 21% |
| 40% Decline | 38% | 23% | 13% |

For many current beneficiaries, smoothing may reduce annual volatility enough to give them the courage to pursue higher equity allocations. However, smoothing is not a panacea. Prolonged bear markets can test the resolve of the current beneficiary, and smoothing does not significantly decrease the odds of large peak-to-trough drops in distributions over long periods of time. For example, consider the peak-to-trough probabilities for a 4% unitrust over 30 years:

| 4% Unitrust and 60% Stock/40% Bonds Probability of Peak-To-Trough Declines 30 Years | | | |
|---|--------------|------------------|------------------|
| | No Smoothing | 3 Year Smoothing | 5 Year Smoothing |
| 20% Decline | >98% | 93% | 81% |
| 30% Decline | 93% | 70% | 51% |
| 40% Decline | 79% | 40% | 26% |

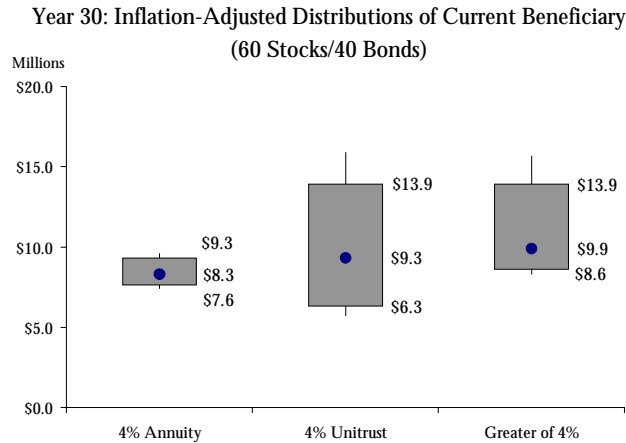
D. THE GREATER OF: ANNUITY AND UNITRUST PERCENTAGE?

A distribution policy that is the greater of a fixed annuity or a unitrust percentage is perhaps what truly happens in reality. It understands that a trust is not only to provide a minimum of distributions (for support, health, welfare and education) but is there to provide additional wealth or spending when trust values can support it. Suffice it to say that this distribution policy has all of the advantages and disadvantages of both the annuity and the unitrust distribution policies, and there is no need to go into additional detail about them. It is more instructive to see how such a distribution policy compares against the comparable annuity or unitrust policy.

| Measuring Risk and Return Objectives 30 Years: 60% Stock/40% Taxable Bonds | | | |
|---|--------------------------------------|----------------------------|-----------------------------|
| Probability of: | Greater of 4% Annuity or Unitrust | 4% Annuity Distribution | 4% Unitrust Distribution |
| Current Beneficiary | | | |
| Meeting \$300,000 budget, inflation- adjusted, after-tax | 77% | 37% | 52% |
| Year-over-year decline of 20% or more | 3% | <2% | 8% |
| Peak-to-trough decline of distributions of 30% or more | 52% | 2% | 93% |
| Median Inflation- Adjusted Wealth (\$ Millions) | \$9.9 | \$8.3 | \$9.3 |
| Remainder Beneficiary | | | |
| Maintaining nominal value | 82% | 84% | >98% |
| Maintaining inflation- adjusted value | 46% | 56% | 57% |
| Probability of Depleting Assets | 4% | 3% | <2% |
| Median inflation- adjusted remainder value (\$ Millions) | \$9.3 | \$11.2 | \$10.7 |

As one can see, the “greater of” distribution is favorable to the current beneficiary, having much of the stability of annuity distributions but much of the upside appreciation of the unitrust. This can be illustrated by looking not just at the median wealth of the current beneficiary but the full range of outcomes:

Most Beneficial to the Current Beneficiary



As one can see, the “greater of” distribution gives the current beneficiary the highest range of wealth, giving all of the upside that a unitrust distribution would give, but none of the downside. If, however, the remainder beneficiary is essentially “subsidizing” the current beneficiary’s interest during the bear markets, a question arises whether the remainder beneficiary should be compensated for that protection. Perhaps a distribution policy that sets not only a lower limit on the downside, but also an upper limit on the upside is more equitable to both parties. Perhaps a distribution policy that is unitrust-based but essentially “collared” on the upside and the downside is better than just the annuity, unitrust or “greater of” policies.

E. OTHER DISTRIBUTION POLICIES

A number of commentators have criticized unitrust distribution policies, most notably James P. Garland, an economist with the Jeffrey Company. Mr. Garland writes that the “fundamental problem with unitrusts is that they base spending on market values, and market values are unpredictable and uncontrollable. . . . Why base spending upon something that trustees cannot control and for which trustees cannot be held accountable?”⁵² He points out that unitrust proponents are optimists, counting on stable or rising portfolio values. However, since the unitrust proponents understand that portfolio values can fall and that a current beneficiary is counting on the distributions, Mr. Garland points out that the “paradoxical effect of adopting unitrust spending . . . is that practical considerations will lead trustees to reduce their equity exposure.”⁵³

As to the primary argument for a unitrust distribution, that a unitrust will align the interests of the beneficiaries, Mr. Garland points out that this alignment of risk and return is unnecessary because they are aligning their risks to a “lottery that the trustee cannot control.”⁵⁴ He points out that dividends tend to grow even when stock prices are falling, and as such, current beneficiaries of traditional fiduciary accounting income may not be harmed

⁵² James P. Garland, *The Problems with Unitrusts*, J. PRIVATE PORTFOLIO MGMT., Vol. I, No. 4 (Spring 1999).

⁵³ *Id.*

⁵⁴ *Id.*

by long market declines. Unitrust beneficiaries on the other hand take on an unnecessary risk of falling market values. Finally, he points out that three-year smoothing is inadequate. The three-year rule came about based upon the previous fifteen years of bear markets where they lasted between four and eighteen months. He points out that these markets are just waves in a market that can experience great tides. Citing research published by Roger Hertog and David A. Levine,⁵⁵ Mr. Garland points out that the last great tide peaked in 1965 and troughed in 1982. Three-year smoothing rules are inadequate to hold back tides of this magnitude. In fact, if one calculated a 3% unitrust distribution from 1965 through 1994 and adjusted the distribution for inflation and taxes, the distribution would still not have reached the level it was in 1965. If the percentage had been higher or if the trust had a higher equity allocation, the decline would have been more severe.

In contrast to a unitrust distribution policy, Mr. Garland believes it is better to view trusts as “distributable income machines”⁵⁶ with the distributions to be determined independently of market values. Trustees seek to provide stable distributions to the current beneficiary and have some control over the distributions. Market values are less stable and less controllable, but bond yields and dividends are more stable and more controllable. Therefore, yields and dividends should be the basis for distributions. He writes that one of the spending policies set out by Messrs. Hertog and Levine, the “real interest plus dividends” distribution, is a “better guide than market values.”⁵⁷

This article is not to say which distribution policy, whether an annuity, unitrust, a combination or the Garland rule is correct. Each of the distribution policies has advantages and disadvantages. Ultimately, the right distribution policy is a function of the intent of the grantor and the objectives of the trust.

IX. DETERMINING THE TAXATION OF THE DISTRIBUTIONS

The final piece in the Total Return Trust puzzle is the taxation of the distributions. Up to this point, all of the data presented has assumed the following: (1) following the traditional presumption under Section 643 of the Code, capital gains are not included in DNI and are taxed to the trust; and (2) all bond allocations were taxable bonds, not municipal bonds. Obviously if any one or both of these assumptions are changed, the relative interests of the current beneficiary and the remainder beneficiary will also change. As discussed above, given the Proposed Regulations and the enactment of UPAIA statutes, the fiduciary has some latitude in determining the taxation of the distributions. In particular, the fiduciary may have the discretion to determine whether capital gain is included in DNI and thus taxable to the current beneficiary and also the “ordering” of the tax items, whether it should

⁵⁵ Roger A. Hertog & David A. Levine, *Income Versus Wealth: Making the Trade Off*, 5-1 J. INVESTING 1 (Spring 1996). Roger Hertog is currently the Vice-Chairman of Alliance Capital Management, the parent company of Bernstein Investment Research & Management. At the time that he wrote the article, David A. Levine was senior vice president at Sanford C. Bernstein & Co., Inc.

⁵⁶ Garland, *supra* note 52.

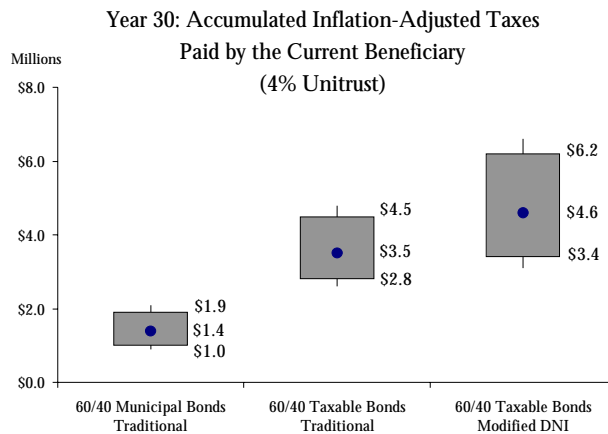
⁵⁷ *Id.* Hertog and Levine proposed, among other types, a policy of spending from a portfolio 100% of the dividends plus only such portion of the bond interest that exceeds the inflation rate. This spending rule was, in turn, based upon Mr. Garland’s spending recommendations from a previous article. Hertog & Levine, *supra* note 55. See James P. Garland, *A Market-Yield Spending Rule for Endowments and Trusts*, FIN. ANALYSTS J. 45 (July/August 1989). Mr. Garland champions a distribution based on earnings on the S&P 500 plus the real bond yield of mid-term Treasury bonds (averaged over the previous three years) with dividends being a proxy for earnings, which are considerably more steady and tend to keep pace with inflation.

be pro rata or the tax items should be distributed according to type (taxable and tax exempt first, short term gain second, long term gain third, etc.). How each of these variables affect the relative interests of the beneficiaries is relatively simple:

1. To the extent capital gains are included in DNI, this favors the remainder beneficiary;
2. To the extent municipal bonds are used, rather than taxable bonds, this favors the current beneficiary; and
3. Ordering the tax items with income items first, with gains afterwards, will favor the remainder beneficiary.

Since the advantages and disadvantages to each beneficiary are evident, there is no need to go into much detail about each of these. However, it is interesting to see the impact of different taxing schemes. For example, consider a \$10 million trust with a 60% stock and 40% bond allocation and a 4% unitrust distribution policy. If one compares the aggregate taxes paid by the current beneficiary over a 30-year period, one can see that there is significantly more paid by the current beneficiary when the distributions include gains in DNI (with income first, capital gains second, etc.) and the allocation includes taxable bonds than when gains are taxable to the trust and the allocation includes tax-exempt bonds.

Tax Burden Can Be Very Different



Generally, the taxing scheme adopted by the fiduciary does not affect the total after-tax wealth produced by the trust assets, taking into account both the wealth distributed to the current beneficiary and the wealth left to the remainder beneficiary. It does however affect the relative wealth shared by each party.

X. METHODOLOGY FOR IMPLEMENTING TOTAL RETURN TRUSTS

Given that each grantor is different, that each trust has a different purpose and that each beneficiary has a different risk tolerance, it is impossible to say that any one combination of factors is right or wrong. Each decision that the fiduciary makes in implementing Total Return Trusts quite simply has risks and returns that must be quantified and evaluated in relation to the objectives of the trust. We believe an analytical process that utilizes a stochastic framework to match the trust design with the objectives of the trust can be extremely useful in making well-informed decisions. In an effort to assist professionals with these decisions we propose the following analytic methodology.

A. DETERMINE THE GOALS OF THE TRUST AND SET EXPECTATIONS

Given the objectives of the trust, the fiduciary must first determine the appropriate time horizon. For trusts providing a lifetime interest, this is generally the reasonable life expectancy of the current beneficiary. However, for other types of trusts like generation-skipping transfer tax-exempt trusts, the time horizon is generally much longer. Getting the appropriate time horizon is absolutely crucial. Time horizon affects not only the relative interests of the party, but it also drastically affects the risks borne by each party.

Determining the goals of the trust is perhaps the most difficult to quantify because in reality there is no such thing as 100% assurance of achieving any goal. Essentially this comes down to determining the probability or level of confidence that is appropriate given the objectives of the trust. For example, a grantor or fiduciary might conclude that the levels of confidence on the goals for a particular trust should be:

| Beneficiary | Return | Confidence Required | Risk | Confidence Required |
|--------------------|---|----------------------------|--|----------------------------|
| Current | Meet budget of \$275,000 (inflation-adjusted & after-tax) | 75% | Prevent 20% decline in annual spending | 75% |
| Remainder | Preserve portfolio's nominal value | 50% | Prevent trust depletion | 90% |

This is a good starting point but it may turn out, after further analysis, that accomplishing all of these is not possible, which is just as important of a conclusion as any other. If none of the goals can be accomplished with sufficient confidence, that is something that the grantor and the beneficiaries should know from the outset.

B. ADDITIONAL SENSITIVITIES

As directed by the UPIA and the UPAIA, any analysis of the various decisions the fiduciary might make in implementing a Total Return Trust should show the following.:

1. Range of after-tax distributions for each of the trust term (for lifetime trusts, this is the reasonable life expectancy of the current beneficiary or life tenant) in both nominal and inflation-adjusted terms.
2. Range of after-tax accumulated wealth distributed to the current beneficiary in inflation-adjusted terms.
3. Probability that the after-tax distributions will fall below a certain budget (for example, \$275,000 after-tax and inflation-adjusted).
4. Probability that the after-tax distributions will fall below 80%, 90% and 100% of the initial distribution (inflation-adjusted) during the term of the trust.
5. Probability of a year-over-year decline of more than 10% or 20%.
6. Probability of a peak-to-trough decline of 20%, 30% and 40%.
7. Probability of depletion of all of the assets.
8. Range or after-tax remainder values in nominal and inflation-adjusted terms.
9. Probability of maintaining the current value of trust assets in nominal and inflation-adjusted terms.
10. Range of shared wealth to the current beneficiary and the remainder beneficiary in percentage terms.

C. EXAMPLE

The best way to see how different asset allocations and distribution policies might be analyzed is to see an example. For this example we will assume a \$10 million trust where the current beneficiary has a life expectancy of 30 years. The fiduciary or grantor has determined that the trust's primary objective is to maintain the lifestyle of the current beneficiary (determined to be \$275,000 after-tax and inflation-adjusted). Since the current beneficiary relies on the trust income for routine living expenses, satisfying this budget is a high priority and must be achieved without significant volatility in the annual distributions. Of course leaving some form of legacy to the grantor's heirs is extremely important as well. Something must be left for the remainder beneficiary, so having at least a 95% probability of preventing depletion of the trust assets is required. The trust's secondary goal is to preserve the trust's inflation-adjusted value for the remainder beneficiary. As a result, the fiduciary will place a higher level of importance on satisfying the current beneficiaries need for income stability than it will require for meeting the goal of preserving the trust's inflation adjusted value for the remainder beneficiary. The fiduciary therefore may set the following requirements for the management of the trust assets:

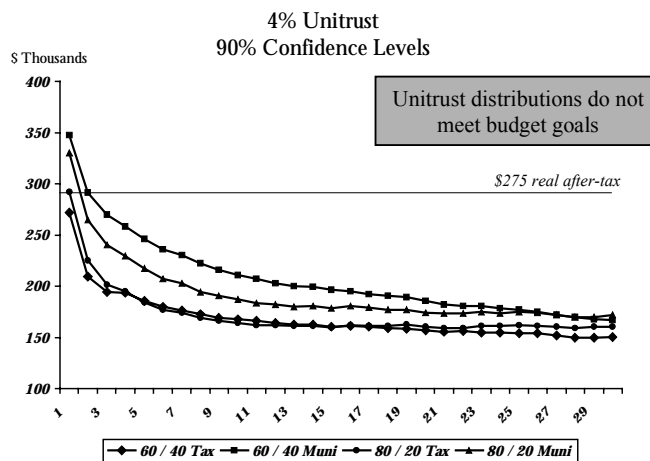
| Beneficiary | Return | Confidence Required | Risk | Confidence Required |
|-------------|---|---------------------|--|---------------------|
| Current | Meet budget of \$275,000 (inflation-adjusted & after-tax) | 90% or more | Prevent 20% decline in annual spending | 90% or more |
| Remainder | Preserve portfolio's inflation-adjusted value | 50% or more | Prevent trust depletion | 95% or more |

As might be expected, the fiduciary must manage the tension between providing a stable income stream to the current beneficiary, and investing for the growth necessary to meet the remainder beneficiary's objectives. The fiduciary believes that a balanced portfolio, tilted towards growth, will provide the best chance of meeting the objectives of the trust. Equities will be needed to provide the growth necessary for the annuity stream to be maintained for a 30-year period and to give the trust a 50% probability of maintaining the inflation-adjusted value for the remainder. Some weighting in bonds will be needed to mitigate the high annual volatility of equities. However, the fiduciary is not sure how much of the portfolio should be in bonds and whether the bonds should be taxable or tax-exempt bonds. So, under consideration is a 60/40 or 80/20 stock bond allocation with both taxable bonds and tax-exempt bonds.

As for the distribution policy, the fiduciary knows that in order to provide the level of income needed, the trust must distribute at least 4% of the value of the trust. Distributing 4% of the current trust value will provide the current beneficiary with enough after-tax income to meet the \$275,000 budget. A 3% distribution will not provide enough current income, and a 5% distribution will adversely affect the remainder beneficiary's interest. Therefore, the fiduciary is considering a 4% unitrust, a 4% annuity, or the greater of a 4% annuity or unitrust. As for the taxation of the distributions, the fiduciary is considering the adoption of a traditional method, with capital gains not included in DNI.

In studying the different asset allocation alternatives with a 4% unitrust, the fiduciary realizes that the unitrust structure can not provide the downside protection necessary for the current beneficiary.

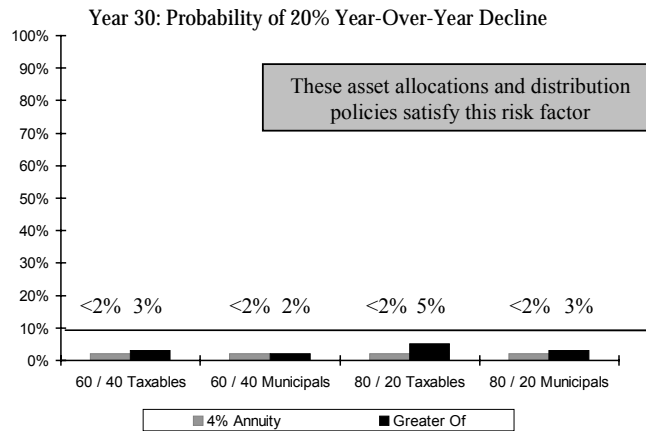
After-Tax Inflation-Adjusted Distributions



The chart above shows the expected after-tax, inflation-adjusted distributions over the term of the trust at the 90% level of confidence. Declines in the market, the erosive effect of distributing 4% annually, taxes, and inflation reduces the trust’s ability to guarantee a current income stream. Due to the high level of certainty required, these factors combine to reduce the distributions at the 90% confidence level fairly rapidly during the trust term.

Since the unitrust is not appropriate for this trust, the fiduciary will focus on the 4% annuity and the “greater of” distribution policy. Since both of these distribution policies place a floor on the distribution at \$400,000, adjusted for inflation, satisfying the current beneficiary’s income needs is not an issue, unless of course the trust assets are depleted, which we will discuss below. The next risk factor to investigate then is year-over-year declines. As the table above indicates, the grantor would like at least a 90% confidence of preventing year-over-year declines of at least 20%. In other words, there should be less than a 10% chance of having a year-over-year decline of 20% or more.

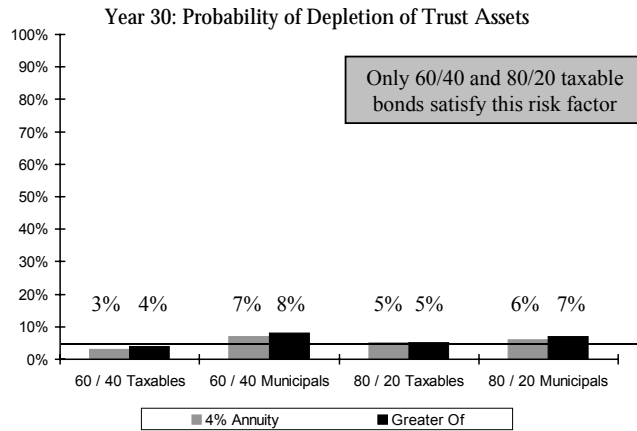
Probability of Year-Over-Year Decline



The chart above shows that all of the distribution policies and all of the asset allocations satisfy this risk factor.

With respect to the risk of depleting all of the assets, the grantor would like a 5% or less chance (at least a 95% level of confidence of preventing depletion). This leaves the grantor or fiduciary with both distribution policies and the taxable bond allocations.

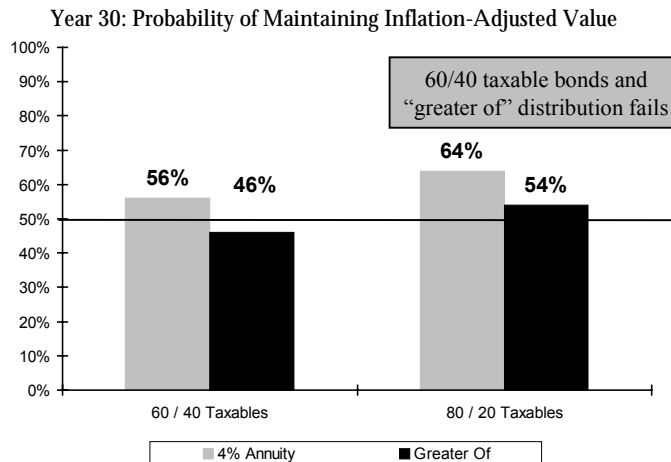
Probability of Depleting Trust Assets



It turns out that only the taxable bond allocations satisfy this risk factor. As one can see, all of the municipal bond allocations have a greater than 5% chance of depletion over 30 years. Since the fiduciary has satisfied the risk factors associated with these distribution policies and asset allocations, the fiduciary can turn to return goals.

The grantor would like at least a 50% chance of maintaining the inflation-adjusted value of the \$10 million trust assets. As the following chart shows, the 60/40 taxable bond allocation and the “greater of” distribution combination falls short of this goal (having only a 46% probability).

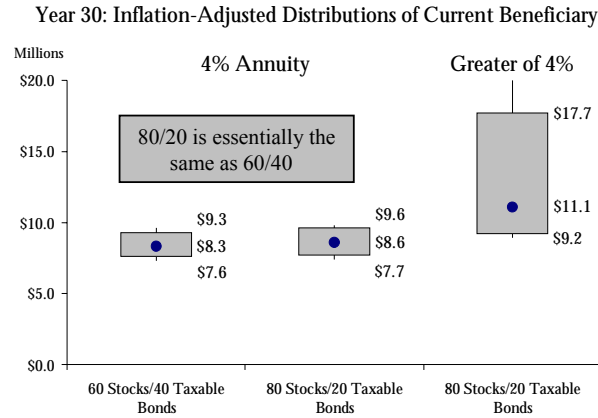
Probability of Maintaining Trust Value



This leaves the fiduciary with a 60/40 taxable bond allocation with both distribution policies and the 80/20 taxable bond allocation with just “greater of” distribution policy.

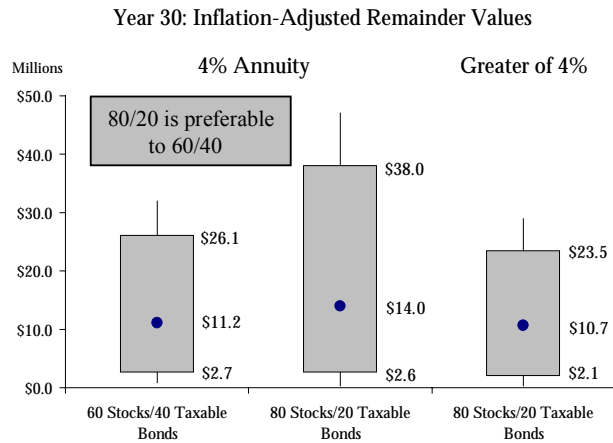
When the fiduciary examines the range of accumulated, inflation-adjusted wealth to the current beneficiary, one finds that there is very little difference between the annuity distributions but, as one would expect, the “greater of” policy can give significantly more wealth than the annuity distributions.

Accumulated Wealth of Current Beneficiary



However, when one examines the remainder values, one can see that the remainder beneficiary would prefer the 4% annuity and 80/20 taxable bond allocation over the 4% and 60/40 taxable bond allocation.

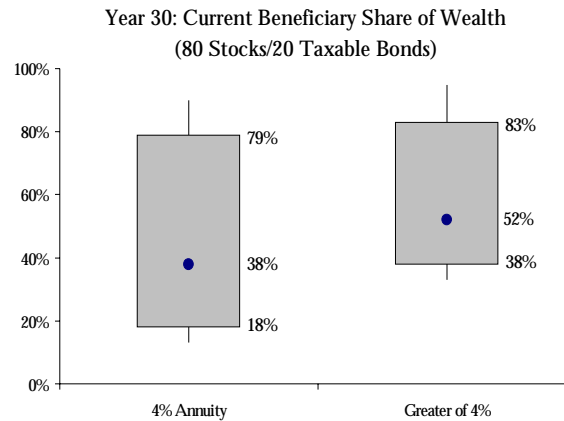
Inflation-Adjusted Remainder Values



Since the current beneficiary is indifferent as to the two asset allocations with the annuity, the 60/40 allocation should be eliminated, leaving the fiduciary with two choices: (1) 80/20 taxable bonds with a 4% annuity; and (2) 80/20 taxable bonds with a “greater of” distribution policy.

When one investigates, for example, the share of wealth to the remainder beneficiary, one sees a stark difference between the two of them:

Share of Wealth: What Was the Settlor's Intent?



As one can see, the annuity distribution provides the current beneficiary with 18% to 79% of the total wealth, with a median of 38%. In very good markets, the current beneficiary will only take 18% of the total wealth and in very bad markets, as much as 79% of the wealth. With respect to the “greater of” distribution policy, the range is 38% to 83%, with a median of 52%. The answer to which one of these two distribution policies is the appropriate one ultimately comes down to the grantor’s intent, but one can immediately see the intent of the grantor is very different depending on the distribution policy. Given the levels of confidence required to maintain the budget of the current beneficiary in this example, does the grantor want the majority of the wealth to pass to the remainder beneficiary? If so, the 4% annuity is more appropriate. If, on the other hand, it is to provide a substantially equal share to both beneficiaries, then the “greater of” distribution policy is more appropriate.

XI. CONCLUSION

The evolution of Total Return Trusts from traditional trust concepts and investment theory is a significant advancement in the coordination of trust law, tax law and modern portfolio theory. Unfortunately with this advancement comes complication. Risk and return, as the UPIA defines them, take on unusual forms depending on the asset allocation and distribution policy adopted by the fiduciary or the grantor (in the governing instrument or not). Being able to quantify these risks and return characteristics is crucial to making an informed decision regarding how to implement a Total Return Trust.

Given the unpredictability of the markets and the inadequacy of traditional planning tools that use average-based analysis, we recommend that any analysis of a Total Return Trust should be based upon a stochastic or probabilistic model that takes into account how markets work and also their unpredictable nature. More importantly, fiduciaries need to ask the right questions when thinking about how a trust should be structured. This will leave professionals with a wide range of critical information in order to set the expectations of both the grantor and the beneficiaries and to make well-informed decisions.

APPENDIX A

Total Return Legislation (as of 6-26-03)

Code: A = Power to adjust between income and principal (UPAIA § 104(a))

U = Unitrust conversion

B = Both power to adjust and unitrust conversion

P = Legislation pending in 2003

| Jurisdiction | Code | UPIA (1994) | UPAIA (1997) | Power to adjust | Unitrust Conversion | Notes |
|---------------|------|-------------|--------------|-----------------|---|---|
| Alabama | A | | ✓ | ✓ | | |
| Alaska | P | ✓ | Intro 2003 | Intro 2003 | Intro 2003 - 4% (3-yr smoothing starting in year 4) | Passed legislature – to governor for signature |
| Arizona | A | ✓ | ✓ | ✓ | | |
| Arkansas | A | ✓ | ✓ | ✓ | | |
| California | A | ✓ | ✓ | ✓ | * | *Failed 1999 |
| Colorado | A | ✓ | ✓ | ✓ | | |
| Connecticut | A | ✓ | ✓ | ✓ | | |
| Delaware | U | | | | ✓ 3-5% Tax ordering | |
| D.C. | A | ✓ | ✓ | ✓ | | |
| Florida | B | | ✓ | ✓ | ✓ 3-5% or ½ Jan. §7520 rate (min 3%, max 5%) | |
| Georgia | | | | | | |
| Hawaii | A | ✓ | ✓ | ✓ | | |
| Idaho | A | ✓ | ✓ | ✓ | | |
| Illinois | U | ✓* | | | ✓ 4% default; 3-5% if all agree | *Similar; UPIA based partly on Illinois law |
| Indiana | A | ✓ | ✓ | ✓ | | |
| Iowa | U | ✓ | ✓ | | ✓ 4% default; 3-5% with court approval | |
| Kansas | A | ✓ | ✓ | ✓ | | |
| Kentucky | | | | | | |
| Louisiana | A | | | ✓* | * | *Power to adjust has unitrust safe harbor |
| Maine | B | ✓ | ✓ | ✓ | ✓ | |
| Maryland | B | ✓* | ✓ | ✓ | ✓ | *Substantially similar to UPIA |
| Massachusetts | P | ✓ | Intro 2003 | | | In House Judiciary Committee |
| Michigan | | ✓ | | | | |

| Jurisdiction | Code | UPIA (1994) | UPAIA (1997) | Power to adjust | Unitrust Conversion | Notes |
|----------------|------|-------------|--------------|-----------------|--|---|
| Minnesota | A | ✓ | | ✓ | | |
| Mississippi | | | | | | |
| Missouri | B | ✓ | ✓ | ✓ | ✓ 3% min; no max | |
| Montana | A | ✓ | ✓ | ✓ | | Enacted 4/25/03 |
| Nebraska | A | ✓ | ✓ | ✓ | | |
| Nevada | A | ✓ | ✓ | ✓ | | Enacted 6/9/03 |
| New Hampshire | | ✓ | | | | |
| New Jersey | A | ✓ | ✓ | ✓* | * | *Adjusting up to 4% or down to 6% presumed reasonable |
| New Mexico | A | ✓ | ✓ | ✓ | | |
| New York | B | * | ✓ | ✓ | ✓ 4% | *Similar to UPIA |
| North Carolina | B | ✓ | ✓ | ✓ | ✓ 3-5% May smooth up to 3 years | Enacted 6/23/03 |
| North Dakota | A | ✓ | ✓ | ✓ | | |
| Ohio | A | ✓ | ✓ | ✓* | * | *Safe harbor for adjusting up to 4% |
| Oklahoma | A | ✓ | ✓ | ✓ | | |
| Oregon | B | ✓ | ✓ | ✓ | ✓ | Enacted 6/10/03 |
| Pennsylvania | B | ✓ | ✓ | ✓ | ✓ 4% | |
| Rhode Island | | ✓ | Failed 2002 | Failed 2002 | | |
| South Carolina | A | ✓ | ✓ | ✓ | | |
| South Dakota | U | | | | ✓ 3% min; no max | |
| Tennessee | A | ✓ | ✓ | ✓ | | |
| Texas | B | ✓ | ✓ | ✓ | ✓ 3-5% Tax ordering; can opt to smooth any # of years | Enacted 6/20/03 |
| Utah | | ✓ | | | | |
| Vermont | | ✓ | Failed 2002 | Failed 2002 | | |
| Virginia | A | ✓ | ✓ | ✓ | | |
| Washington | B | ✓ | ✓ | ✓ | ✓ 4% | |
| West Virginia | A | ✓ | ✓ | ✓ | | |
| Wisconsin | | Failed 2002 | Failed 2002 | Failed 2002 | | |
| Wyoming | A | ✓ | ✓ | ✓ | | |

APPENDIX B**ASSUMPTIONS**

| | Annualized Compound Return | Average Annual Return | Average Annual Income | 1-Year Volatility | 30-Year Annual Equivalent Volatility |
|-----------------------------------|----------------------------------|--------------------------|--------------------------|----------------------|---|
| Municipal Cash | 2.0 | 2.0 | 2.0 | 0.4 | 5.0 |
| Cash Equivalents | 2.7 | 2.8 | 2.8 | 0.6 | 6.6 |
| Short-Term In-State Municipals | 2.7 | 2.8 | 2.5 | 0.7 | 5.1 |
| Short-Term Diversified Municipals | 2.8 | 2.9 | 2.6 | 0.8 | 5.2 |
| Short-Term Taxables | 4.1 | 4.2 | 3.9 | 1.2 | 6.8 |
| Short-Term Treasuries | 3.9 | 3.9 | 3.6 | 1.2 | 6.8 |
| Int.-Term In-State Munis | 3.4 | 3.6 | 3.1 | 4.0 | 5.5 |
| Int.-Term Diversified Municipals | 3.4 | 3.6 | 3.2 | 4.0 | 5.5 |
| Int.-Term Taxables | 4.9 | 5.1 | 4.7 | 5.3 | 5.9 |
| Int.-Term Treasuries | 4.6 | 4.8 | 4.5 | 5.3 | 5.9 |
| Long-Term In-State Municipals | 4.2 | 5.5 | 4.1 | 11.9 | 11.1 |
| Long-Term Diversified Municipals | 4.3 | 5.5 | 4.2 | 11.7 | 11.1 |
| Long-Term Taxables | 5.6 | 6.7 | 6.5 | 12.2 | 12.0 |
| Long-Term Treasuries | 5.2 | 6.4 | 6.2 | 12.3 | 12.5 |
| Inflation Protected Bonds | 4.4 | 4.7 | 4.6 | 6.5 | 6.3 |
| High Yield Bonds | 6.6 | 7.5 | 6.8 | 10.3 | 8.3 |
| Int'l Bonds-Hedged | 4.6 | 4.8 | 4.6 | 4.4 | 5.9 |
| Int'l Bonds-Unhedged | 4.9 | 5.7 | 4.7 | 11.7 | 7.4 |
| Diversified U.S. | 8.2 | 10.2 | 2.2 | 18.3 | 13.2 |
| U.S. Value | 8.2 | 10.0 | 2.8 | 17.9 | 12.6 |
| U.S. Growth | 8.2 | 10.3 | 1.5 | 19.4 | 15.0 |
| Diversified Int'l - Half-Hedged | 8.8 | 11.1 | 2.7 | 19.3 | 13.1 |
| Diversified Int'l - Hedged | 8.5 | 10.6 | 2.6 | 18.6 | 13.1 |
| Diversified Int'l - Unhedged | 8.7 | 11.5 | 2.8 | 21.4 | 13.7 |
| Emerging Markets | 7.8 | 12.2 | 0.8 | 27.4 | 23.7 |
| Mid-Cap US | 8.3 | 10.9 | 1.9 | 21.0 | 13.8 |

[Continued...]

ASSUMPTIONS

| | Annualized Compound Return | Average Annual Return | Average Annual Income | 1-Year Volatility | 30-Year Annual Equivalent Volatility |
|---------------------------------|----------------------------------|--------------------------|--------------------------|----------------------|---|
| Small-Cap US | 8.3 | 12.0 | 1.5 | 24.5 | 13.4 |
| High-Risk U.S. | 5.4 | 10.6 | 1.3 | 30.2 | 28.8 |
| High-Risk Int'l | 6.0 | 12.6 | 1.3 | 34.4 | 30.5 |
| REITs | 7.0 | 8.0 | 3.4 | 13.0 | 12.3 |
| Hedge Funds - Long/Short Equity | 9.5 | 11.1 | 8.6 | 16.0 | 18.1 |
| Hedge Funds - Relative Value | 4.5 | 4.8 | 3.9 | 6.9 | 13.0 |
| Hedge Funds - Global Macro | 9.7 | 11.4 | 8.9 | 17.0 | 18.5 |
| Hedge Funds - Event Driven | 6.8 | 7.3 | 5.6 | 8.7 | 12.6 |
| Inflation | 2.5 | 2.5 | n/a | 1.4 | 6.8 |

Based on 10,000 simulated trials each consisting of 30-year periods.

Reflects Bernstein's estimates, and the capital market conditions of January 02, 2003.

Does not represent any past performance and is not a guarantee of any future specific risk-levels or returns, or any specific range of risk-levels or returns.

CORRELATIONS

| | Municipal Cash | Cash Equivalents | Short-Term In-State Municipals | Short-Term Diversified Municipals | Short-Term Taxables | Short-Term Treasuries | Int.-Term In-State Munis | Int.-Term Diversified Municipals |
|-----------------------------------|----------------|------------------|--------------------------------|-----------------------------------|---------------------|-----------------------|--------------------------|----------------------------------|
| Municipal Cash | 1.0 | 0.8 | (0.9) | (0.9) | (0.7) | (0.7) | (0.7) | (0.8) |
| Cash Equivalents | 0.8 | 1.0 | (0.7) | (0.7) | (0.9) | (0.9) | (0.5) | (0.5) |
| Short-Term In-State Municipals | (0.9) | (0.7) | 1.0 | 1.0 | 0.8 | 0.8 | 0.9 | 0.9 |
| Short-Term Diversified Municipals | (0.9) | (0.7) | 1.0 | 1.0 | 0.8 | 0.8 | 0.9 | 0.9 |
| Short-Term Taxables | (0.7) | (0.9) | 0.8 | 0.8 | 1.0 | 1.0 | 0.6 | 0.6 |
| Short-Term Treasuries | (0.7) | (0.9) | 0.8 | 0.8 | 1.0 | 1.0 | 0.6 | 0.6 |
| Int.-Term In-State Munis | (0.7) | (0.5) | 0.9 | 0.9 | 0.6 | 0.6 | 1.0 | 1.0 |
| Int.-Term Diversified Municipals | (0.8) | (0.5) | 0.9 | 0.9 | 0.6 | 0.6 | 1.0 | 1.0 |
| Int.-Term Taxables | (0.5) | (0.7) | 0.7 | 0.7 | 0.9 | 0.9 | 0.7 | 0.7 |
| Int.-Term Treasuries | (0.5) | (0.7) | 0.7 | 0.7 | 0.9 | 0.9 | 0.7 | 0.7 |
| Long-Term In-State Municipals | (0.7) | (0.4) | 0.8 | 0.8 | 0.4 | 0.4 | 0.9 | 0.9 |
| Long-Term Diversified Municipals | (0.7) | (0.4) | 0.8 | 0.8 | 0.4 | 0.4 | 0.9 | 0.9 |
| Long-Term Taxables | (0.5) | (0.6) | 0.6 | 0.6 | 0.7 | 0.7 | 0.6 | 0.6 |
| Long-Term Treasuries | (0.5) | (0.6) | 0.6 | 0.6 | 0.7 | 0.7 | 0.6 | 0.6 |
| Inflation Protected Bonds | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 |
| High Yield Bonds | (0.4) | (0.5) | 0.5 | 0.5 | 0.6 | 0.6 | 0.5 | 0.5 |
| Int'l Bonds-Hedged | (0.4) | (0.5) | 0.4 | 0.4 | 0.5 | 0.5 | 0.3 | 0.3 |
| Int'l Bonds-Unhedged | (0.2) | (0.2) | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 |
| Diversified U.S. | (0.1) | (0.2) | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 |
| U.S. Value | (0.1) | (0.2) | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 |

[Continued...]

CORRELATIONS

| | | | | | | | | |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| U.S. Growth | (0.1) | (0.2) | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 |
| Diversified Int'l - Half-Hedged | (0.2) | (0.3) | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Diversified Int'l - Hedged | (0.2) | (0.3) | 0.2 | 0.2 | 0.3 | 0.3 | 0.2 | 0.2 |
| Diversified Int'l - Unhedged | (0.2) | (0.2) | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Emerging Markets | (0.2) | (0.2) | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 |
| Mid-Cap US | (0.1) | (0.2) | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 |
| Small-Cap US | (0.1) | (0.1) | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| High-Risk U.S. | (0.1) | (0.1) | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| High-Risk Int'l | (0.1) | (0.1) | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| REITs | (0.1) | (0.1) | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 |
| Hedge Funds - Long/Short Equity | (0.2) | (0.3) | 0.2 | 0.2 | 0.3 | 0.3 | 0.2 | 0.2 |
| Hedge Funds - Relative Value | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 |
| Hedge Funds - Global Macro | (0.2) | (0.2) | 0.2 | 0.2 | 0.3 | 0.3 | 0.2 | 0.2 |
| Hedge Funds - Event Driven | (0.2) | (0.3) | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| Inflation | 0.4 | 0.5 | (0.3) | (0.3) | (0.4) | (0.4) | (0.2) | (0.2) |

Based on 10,000 simulated trials each consisting of 1-year periods.

Reflects Bernstein's estimates, and the capital market conditions of January 02, 2003.

Does not represent any past performance and is not a guarantee of any future specific risk-levels or returns, or any specific range of risk-levels or returns.

[Continued...]

CORRELATIONS

| | Int.-Term Taxables | Int.-Term Treasuries | Long-Term In- State Municipals | Long-Term Diversified Municipals | Long-Term Taxables | Long-Term Treasuries | Inflation Protected Bonds | High Yield Bonds |
|-----------------------------------|-----------------------|-------------------------|--------------------------------------|--|-----------------------|-------------------------|---------------------------------|---------------------|
| Municipal Cash | (0.5) | (0.5) | (0.7) | (0.7) | (0.5) | (0.5) | 0.1 | (0.4) |
| Cash Equivalents | (0.7) | (0.7) | (0.4) | (0.4) | (0.6) | (0.6) | 0.2 | (0.5) |
| Short-Term In-State Municipals | 0.7 | 0.7 | 0.8 | 0.8 | 0.6 | 0.6 | 0.0 | 0.5 |
| Short-Term Diversified Municipals | 0.7 | 0.7 | 0.8 | 0.8 | 0.6 | 0.6 | 0.0 | 0.5 |
| Short-Term Taxables | 0.9 | 0.9 | 0.4 | 0.4 | 0.7 | 0.7 | 0.0 | 0.6 |
| Short-Term Treasuries | 0.9 | 0.9 | 0.4 | 0.4 | 0.7 | 0.7 | 0.0 | 0.6 |
| Int.-Term In-State Munis | 0.7 | 0.7 | 0.9 | 0.9 | 0.6 | 0.6 | 0.1 | 0.5 |
| Int.-Term Diversified Municipals | 0.7 | 0.7 | 0.9 | 0.9 | 0.6 | 0.6 | 0.1 | 0.5 |
| Int.-Term Taxables | 1.0 | 1.0 | 0.5 | 0.5 | 0.9 | 0.9 | 0.1 | 0.6 |
| Int.-Term Treasuries | 1.0 | 1.0 | 0.5 | 0.5 | 0.9 | 0.9 | 0.1 | 0.6 |
| Long-Term In-State Municipals | 0.5 | 0.5 | 1.0 | 1.0 | 0.6 | 0.6 | 0.1 | 0.4 |
| Long-Term Diversified Municipals | 0.5 | 0.5 | 1.0 | 1.0 | 0.6 | 0.6 | 0.1 | 0.4 |
| Long-Term Taxables | 0.9 | 0.9 | 0.6 | 0.6 | 1.0 | 1.0 | 0.1 | 0.6 |
| Long-Term Treasuries | 0.9 | 0.9 | 0.6 | 0.6 | 1.0 | 1.0 | 0.1 | 0.6 |
| Inflation Protected Bonds | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 1.0 | 0.0 |
| High Yield Bonds | 0.6 | 0.6 | 0.4 | 0.4 | 0.6 | 0.6 | 0.0 | 1.0 |
| Int'l Bonds-Hedged | 0.4 | 0.4 | 0.2 | 0.2 | 0.3 | 0.3 | (0.1) | 0.2 |
| Int'l Bonds-Unhedged | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 |
| Diversified U.S. | 0.2 | 0.2 | 0.1 | 0.1 | 0.3 | 0.3 | 0.0 | 0.5 |
| U.S. Value | 0.2 | 0.2 | 0.1 | 0.1 | 0.3 | 0.3 | 0.0 | 0.5 |

[Continued...]

CORRELATIONS

| | | | | | | | | |
|---------------------------------|-------|-------|-------|-------|-------|-------|-----|-------|
| U.S. Growth | 0.2 | 0.2 | 0.1 | 0.1 | 0.3 | 0.3 | 0.0 | 0.5 |
| Diversified Int'l - Half-Hedged | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.0 | 0.4 |
| Diversified Int'l - Hedged | 0.3 | 0.3 | 0.2 | 0.2 | 0.3 | 0.3 | 0.0 | 0.4 |
| Diversified Int'l - Unhedged | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 | 0.0 | 0.3 |
| Emerging Markets | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 | 0.0 | 0.3 |
| Mid-Cap US | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 | 0.0 | 0.4 |
| Small-Cap US | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 | 0.0 | 0.4 |
| High-Risk U.S. | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.0 | 0.3 |
| High-Risk Int'l | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.0 | 0.2 |
| REITs | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.3 |
| Hedge Funds - Long/Short Equity | 0.3 | 0.3 | 0.2 | 0.2 | 0.3 | 0.3 | 0.0 | 0.5 |
| Hedge Funds - Relative Value | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.2 |
| Hedge Funds - Global Macro | 0.3 | 0.3 | 0.2 | 0.2 | 0.3 | 0.3 | 0.0 | 0.5 |
| Hedge Funds - Event Driven | 0.4 | 0.4 | 0.2 | 0.2 | 0.4 | 0.4 | 0.0 | 0.7 |
| Inflation | (0.3) | (0.3) | (0.2) | (0.2) | (0.3) | (0.3) | 0.9 | (0.3) |

Based on 10,000 simulated trials each consisting of 1-year periods.

Reflects Bernstein's estimates, and the capital market conditions of January 02, 2003.

Does not represent any past performance and is not a guarantee of any future specific risk-levels or returns, or any specific range of risk-levels or returns.

[Continued...]

CORRELATIONS

| | Int'l Bonds- Hedged | Int'l Bonds- Unhedged | Diversified U.S. | U.S. Value | U.S. Growth | Diversified Int'l - Half- Hedged | Diversified Int'l - Hedged | Diversified Int'l - Unhedged |
|-----------------------------------|------------------------|--------------------------|---------------------|------------|-------------|--|-------------------------------|------------------------------------|
| Municipal Cash | (0.4) | (0.2) | (0.1) | (0.1) | (0.1) | (0.2) | (0.2) | (0.2) |
| Cash Equivalents | (0.5) | (0.2) | (0.2) | (0.2) | (0.2) | (0.3) | (0.3) | (0.2) |
| Short-Term In-State Municipals | 0.4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 |
| Short-Term Diversified Municipals | 0.4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 |
| Short-Term Taxables | 0.5 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 |
| Short-Term Treasuries | 0.5 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 |
| Int.-Term In-State Munis | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 |
| Int.-Term Diversified Municipals | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 |
| Int.-Term Taxables | 0.4 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 |
| Int.-Term Treasuries | 0.4 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 |
| Long-Term In-State Municipals | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 |
| Long-Term Diversified Municipals | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 |
| Long-Term Taxables | 0.3 | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 |
| Long-Term Treasuries | 0.3 | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 |
| Inflation Protected Bonds | (0.1) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| High Yield Bonds | 0.2 | 0.1 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 | 0.3 |
| Int'l Bonds-Hedged | 1.0 | 0.4 | 0.1 | 0.1 | 0.1 | 0.3 | 0.4 | 0.3 |
| Int'l Bonds-Unhedged | 0.4 | 1.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.1 | 0.6 |
| Diversified U.S. | 0.1 | 0.0 | 1.0 | 1.0 | 1.0 | 0.6 | 0.6 | 0.5 |
| U.S. Value | 0.1 | 0.0 | 1.0 | 1.0 | 0.9 | 0.6 | 0.6 | 0.5 |

[Continued...]

CORRELATIONS

| | | | | | | | | |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| U.S. Growth | 0.1 | 0.0 | 1.0 | 0.9 | 1.0 | 0.6 | 0.6 | 0.5 |
| Diversified Int'l - Half-Hedged | 0.3 | 0.4 | 0.6 | 0.6 | 0.6 | 1.0 | 1.0 | 1.0 |
| Diversified Int'l - Hedged | 0.4 | 0.1 | 0.6 | 0.6 | 0.6 | 1.0 | 1.0 | 0.9 |
| Diversified Int'l - Unhedged | 0.3 | 0.6 | 0.5 | 0.5 | 0.5 | 1.0 | 0.9 | 1.0 |
| Emerging Markets | 0.3 | 0.1 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.5 |
| Mid-Cap US | 0.1 | 0.0 | 0.9 | 0.9 | 0.9 | 0.5 | 0.6 | 0.5 |
| Small-Cap US | 0.1 | 0.0 | 0.8 | 0.8 | 0.8 | 0.5 | 0.5 | 0.4 |
| High-Risk U.S. | 0.0 | 0.0 | 0.6 | 0.6 | 0.6 | 0.4 | 0.4 | 0.3 |
| High-Risk Int'l | 0.2 | 0.4 | 0.3 | 0.3 | 0.3 | 0.6 | 0.5 | 0.6 |
| REITs | 0.1 | 0.0 | 0.5 | 0.5 | 0.4 | 0.3 | 0.3 | 0.2 |
| Hedge Funds - Long/Short Equity | 0.2 | 0.1 | 0.9 | 0.8 | 0.9 | 0.7 | 0.7 | 0.7 |
| Hedge Funds - Relative Value | 0.0 | 0.0 | 0.4 | 0.4 | 0.4 | 0.2 | 0.2 | 0.2 |
| Hedge Funds - Global Macro | 0.2 | 0.2 | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 | 0.7 |
| Hedge Funds - Event Driven | 0.2 | 0.1 | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 |
| Inflation | (0.3) | (0.1) | (0.1) | (0.1) | (0.1) | (0.1) | (0.1) | (0.1) |

Based on 10,000 simulated trials each consisting of 1-year periods.

Reflects Bernstein's estimates, and the capital market conditions of January 02, 2003.

Does not represent any past performance and is not a guarantee of any future specific risk-levels or returns, or any specific range of risk-levels or returns.

[Continued...]

CORRELATIONS

| | Emerging Markets | Mid-Cap US | Small-Cap US | High-Risk U.S. | High-Risk Int'l | REITs | Hedge Funds - Long/Short Equity | Hedge Funds - Relative Value |
|-----------------------------------|---------------------|------------|--------------|----------------|-----------------|-------|--|------------------------------------|
| Municipal Cash | (0.2) | (0.1) | (0.1) | (0.1) | (0.1) | (0.1) | (0.2) | 0.0 |
| Cash Equivalents | (0.2) | (0.2) | (0.1) | (0.1) | (0.1) | (0.1) | (0.3) | 0.0 |
| Short-Term In-State Municipals | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.0 |
| Short-Term Diversified Municipals | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.0 |
| Short-Term Taxables | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.0 |
| Short-Term Treasuries | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.0 |
| Int.-Term In-State Munis | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 |
| Int.-Term Diversified Municipals | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 |
| Int.-Term Taxables | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.3 | 0.1 |
| Int.-Term Treasuries | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.3 | 0.1 |
| Long-Term In-State Municipals | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.0 |
| Long-Term Diversified Municipals | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 |
| Long-Term Taxables | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.1 |
| Long-Term Treasuries | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.1 |
| Inflation Protected Bonds | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| High Yield Bonds | 0.3 | 0.4 | 0.4 | 0.3 | 0.2 | 0.3 | 0.5 | 0.2 |
| Int'l Bonds-Hedged | 0.3 | 0.1 | 0.1 | 0.0 | 0.2 | 0.1 | 0.2 | 0.0 |
| Int'l Bonds-Unhedged | 0.1 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.1 | 0.0 |
| Diversified U.S. | 0.5 | 0.9 | 0.8 | 0.6 | 0.3 | 0.5 | 0.9 | 0.4 |
| U.S. Value | 0.5 | 0.9 | 0.8 | 0.6 | 0.3 | 0.5 | 0.8 | 0.4 |

[Continued...]

CORRELATIONS

| | | | | | | | | |
|---------------------------------|-------|-------|-------|-----|-----|-------|-------|-----|
| U.S. Growth | 0.5 | 0.9 | 0.8 | 0.6 | 0.3 | 0.4 | 0.9 | 0.4 |
| Diversified Int'l - Half-Hedged | 0.6 | 0.5 | 0.5 | 0.4 | 0.6 | 0.3 | 0.7 | 0.2 |
| Diversified Int'l - Hedged | 0.6 | 0.6 | 0.5 | 0.4 | 0.5 | 0.3 | 0.7 | 0.2 |
| Diversified Int'l - Unhedged | 0.5 | 0.5 | 0.4 | 0.3 | 0.6 | 0.2 | 0.7 | 0.2 |
| Emerging Markets | 1.0 | 0.5 | 0.4 | 0.3 | 0.3 | 0.2 | 0.7 | 0.2 |
| Mid-Cap US | 0.5 | 1.0 | 0.9 | 0.5 | 0.3 | 0.5 | 0.8 | 0.4 |
| Small-Cap US | 0.4 | 0.9 | 1.0 | 0.5 | 0.3 | 0.5 | 0.7 | 0.3 |
| High-Risk U.S. | 0.3 | 0.5 | 0.5 | 1.0 | 0.2 | 0.3 | 0.5 | 0.2 |
| High-Risk Int'l | 0.3 | 0.3 | 0.3 | 0.2 | 1.0 | 0.2 | 0.4 | 0.1 |
| REITs | 0.2 | 0.5 | 0.5 | 0.3 | 0.2 | 1.0 | 0.4 | 0.2 |
| Hedge Funds - Long/Short Equity | 0.7 | 0.8 | 0.7 | 0.5 | 0.4 | 0.4 | 1.0 | 0.4 |
| Hedge Funds - Relative Value | 0.2 | 0.4 | 0.3 | 0.2 | 0.1 | 0.2 | 0.4 | 1.0 |
| Hedge Funds - Global Macro | 0.7 | 0.8 | 0.7 | 0.5 | 0.4 | 0.4 | 0.9 | 0.4 |
| Hedge Funds - Event Driven | 0.4 | 0.6 | 0.5 | 0.4 | 0.3 | 0.3 | 0.7 | 0.3 |
| Inflation | (0.1) | (0.1) | (0.1) | 0.0 | 0.0 | (0.1) | (0.1) | 0.0 |

Based on 10,000 simulated trials each consisting of 1-year periods.

Reflects Bernstein's estimates, and the capital market conditions of January 02, 2003.

Does not represent any past performance and is not a guarantee of any future specific risk-levels or returns, or any specific range of risk-levels or returns.

[Continued...]

CORRELATIONS

| | Hedge Funds - Global Macro | Hedge Funds - Event Driven | Inflation |
|-----------------------------------|----------------------------------|----------------------------------|-----------|
| Municipal Cash | (0.2) | (0.2) | 0.4 |
| Cash Equivalents | (0.2) | (0.3) | 0.5 |
| Short-Term In-State Municipals | 0.2 | 0.3 | (0.3) |
| Short-Term Diversified Municipals | 0.2 | 0.3 | (0.3) |
| Short-Term Taxables | 0.3 | 0.3 | (0.4) |
| Short-Term Treasuries | 0.3 | 0.3 | (0.4) |
| Int.-Term In-State Munis | 0.2 | 0.3 | (0.2) |
| Int.-Term Diversified Municipals | 0.2 | 0.3 | (0.2) |
| Int.-Term Taxables | 0.3 | 0.4 | (0.3) |
| Int.-Term Treasuries | 0.3 | 0.4 | (0.3) |
| Long-Term In-State Municipals | 0.2 | 0.2 | (0.2) |
| Long-Term Diversified Municipals | 0.2 | 0.2 | (0.2) |
| Long-Term Taxables | 0.3 | 0.4 | (0.3) |
| Long-Term Treasuries | 0.3 | 0.4 | (0.3) |
| Inflation Protected Bonds | 0.0 | 0.0 | 0.9 |
| High Yield Bonds | 0.5 | 0.7 | (0.3) |
| Int'l Bonds-Hedged | 0.2 | 0.2 | (0.3) |
| Int'l Bonds-Unhedged | 0.2 | 0.1 | (0.1) |
| Diversified U.S. | 0.9 | 0.7 | (0.1) |
| U.S. Value | 0.8 | 0.6 | (0.1) |

[Continued...]

CORRELATIONS

| | | | |
|---------------------------------|-------|-------|-------|
| U.S. Growth | 0.8 | 0.6 | (0.1) |
| Diversified Int'l - Half-Hedged | 0.8 | 0.6 | (0.1) |
| Diversified Int'l - Hedged | 0.8 | 0.6 | (0.1) |
| Diversified Int'l - Unhedged | 0.7 | 0.5 | (0.1) |
| Emerging Markets | 0.7 | 0.4 | (0.1) |
| Mid-Cap US | 0.8 | 0.6 | (0.1) |
| Small-Cap US | 0.7 | 0.5 | (0.1) |
| High-Risk U.S. | 0.5 | 0.4 | 0.0 |
| High-Risk Int'l | 0.4 | 0.3 | 0.0 |
| REITs | 0.4 | 0.3 | (0.1) |
| Hedge Funds - Long/Short Equity | 0.9 | 0.7 | (0.1) |
| Hedge Funds - Relative Value | 0.4 | 0.3 | 0.0 |
| Hedge Funds - Global Macro | 1.0 | 0.7 | (0.1) |
| Hedge Funds - Event Driven | 0.7 | 1.0 | (0.2) |
| Inflation | (0.1) | (0.2) | 1.0 |

Based on 10,000 simulated trials each consisting of 1-year periods.

Reflects Bernstein's estimates, and the capital market conditions of January 02, 2003.

Does not represent any past performance and is not a guarantee of any future specific risk-levels or returns, or any specific range of risk-levels or returns.

NOTES ON WEALTH FORECASTING SYSTEM

1. Purpose and Description of Wealth Forecasting Analysis

Bernstein's Wealth Forecasting Analysis is designed to assist investors in making their long-term investment decisions as to their allocation of investments among categories of financial assets. Our new planning tool consists of a four-step process: (1) Client-Profile Input: the client's asset allocation, income, expenses, cash withdrawals, tax rate, risk-tolerance level, goals and other factors; (2) Client Scenarios: in effect, questions the client would like our guidance on, which may touch on issues such as when to retire, what his cash-flow stream is likely to be, whether his portfolio can beat inflation long-term, and how different asset allocations might impact his long-term security; (3) The Capital-Markets Engine: our proprietary model that uses our research and historical data to create a vast range of market returns, which takes into account the linkages within and among the capital markets, as well as their unpredictability; and finally (4) A Probability Distribution of Outcomes: based on the assets invested pursuant to the stated asset allocation, 90% of the estimated ranges of returns and asset values the client could expect to experience are represented within the range established by the 5th and 95th percentiles on "box- and- whiskers" graphs. However, outcomes outside this range are expected to occur 10% of the time; thus, the range does not establish the boundaries for all outcomes. Expected market returns on bonds are derived taking into account yield and other criteria. An important assumption is that stocks will, over time, outperform long bonds by a reasonable amount, although this is in no way a certainty. Moreover, actual future results may not meet Bernstein's estimates of the range of market returns, as these results are subject to a variety of economic, market and other variables. Accordingly, the analysis should not be construed as a promise of actual future results, the actual range of future results or the actual probability that these results will be realized.

2. Retirement Vehicles

Each retirement plan is modeled as one of the following vehicles: IRA, 401(k), 403(b) or Keogh. One of the significant differences among these vehicle types is the date at which mandatory distributions commence. For IRA vehicles, mandatory distributions are assumed to commence during the year in which the investor reaches the age of 70.5. For 401(k), 403(b), and Keogh vehicles, mandatory distributions are assumed to commence at the later of (i) the year in which the investor reaches the age of 70.5 and (ii) the year in which the investor retires. In the case of a married couple, these dates are based on the date of birth of the older spouse. The minimum mandatory withdrawal is estimated using the Minimum Distribution Incidental Benefit tables as published on www.irs.gov.

3. Rebalancing

Another important planning assumption is how the asset allocation varies over time. We attempt to model how the portfolio would actually be managed. Cash flows and cash generated from portfolio turnover are used to maintain the selected asset allocation between cash, bonds, stocks, REITs, and hedge funds over the period of the analysis. Where this is not sufficient, an optimization program is run to trade off the mismatch between the actual allocation and targets against the cost of trading to rebalance. In general, the portfolio will be maintained reasonably close to the target allocation. In addition, in later years, there may be contention between the total relationship's allocation and those of the separate portfolios. For example, suppose an investor (in the top marginal federal tax bracket) begins with an asset mix consisting entirely of municipal bonds in his personal portfolio and entirely of stocks in his retirement portfolio. If personal assets are spent, the mix between stocks and bonds will be pulled away from targets. We put primary weight on maintaining the overall allocation near target, which may result in an allocation to taxable bonds in the retirement portfolio as the personal assets decrease in value relative to the retirement portfolio's value.

NOTES ON WEALTH FORECASTING SYSTEM

4. Expenses and Spending Plans (Withdrawals)

All results are generally shown after applicable taxes and after anticipated withdrawals and/or additions, unless otherwise noted. Liquidations may result in realized gains or losses which will have capital gains tax implications. See details on withdrawals in Cash-Flow Summary, if any.

5. Modeled Asset Classes

The following assets or indexes were used in this analysis to represent the various model classes:

| Asset Class | Modeled As... | Annual Turnover Rate |
|--|--|----------------------|
| Municipal Cash | Municipal money-market securities | 100% |
| Cash Equivalents | 3-month Treasury bills | 100% |
| Short-Term In-State Municipals | AA-rated in-state municipal bonds of 2-year maturity | 50% |
| Short-Term Diversified Municipals | AA-rated diversified municipal bonds of 2-year maturity | 50% |
| Short-Term Taxables | Taxable bonds with maturity of 2 years | 50% |
| Short-Term Treasuries | 2-year maturity Treasuries | 50% |
| Intermediate-Term In-State Municipals | AA-rated in-state municipal bonds of 7-year maturity | 30% |
| Intermediate-Term Diversified Municipals | AA-rated diversified municipal bonds of 7-year maturity | 30% |
| Intermediate-Term Taxables | Taxable bonds with maturity of 7 years | 30% |
| Intermediate-Term Treasuries | 7-year-maturity Treasuries | 30% |
| Long-Term In-State Municipals | AA-rated in-state municipal bonds with 30-year maturity | 20% |
| Long-Term Diversified Municipals | AA-rated diversified municipal bonds with 30-year maturity | 20% |
| Long-Term Taxables | Taxable bonds with maturity of 30 years | 20% |
| Long-Term Treasuries | 30-year maturity Treasuries | 20% |
| Inflation Protected Bonds | 7-Year Treasury Inflation Protected Security | 30% |
| High Yield Bonds | 7-Year bonds with credit characteristics of CSFB High Yield Index II | 30% |
| International Bonds-Hedged | Salomon Brothers World Government Bond Index/Non-U.S. Hedged | 30% |
| International Bonds-Unhedged | Salomon Brothers World Government Bond Index, Non-U.S. Unhedged | 30% |
| Diversified U.S. | S & P 500 Index | 15% |
| U.S. Value | S & P / Barra Value Index | 15% |
| U.S. Growth | S & P / Barra Growth Index | 15% |
| Diversified Int'l - Half-Hedged | MSCI EAFE half-hedged | 15% |
| Diversified International - Hedged | MSCI EAFE fully-hedged | 15% |
| Diversified International - Unhedged | MSCI EAFE Unhedged | 15% |

NOTES ON WEALTH FORECASTING SYSTEM

| | | |
|---------------------------------|---|-----|
| Emerging Markets | MSCI Emerging Markets Free Index | 20% |
| Mid-Cap Stocks | Russell MidCap Index | 15% |
| Small-Capitalization | Russell 2000 Index | 15% |
| High-Risk U.S. | Sector Fund | 15% |
| High-Risk Intl | Country Fund | 15% |
| Real Estate Investment Trusts | NAREIT | 30% |
| Hedge Funds - Long/Short Equity | CSFB Tremont Long Short Equity Hedge Fund Index | 0% |
| Hedge Funds - Relative Value | CSFB Tremont Equity Market Neutral Hedge Fund Index | 0% |
| Hedge Funds - Global Macro | CSFB Tremont Global Macro Hedge Fund Index | 0% |
| Hedge Funds - Event Driven | CSFB Tremont Event Driven Hedge Fund Index | 0% |

6. Volatility

Volatility is a measure of dispersion of expected returns around the average. The greater the volatility, the more likely it is that returns in any one period will be substantially above or below the expected result. The volatility for each asset class used in this analysis is listed on the Assumptions page. In general two-thirds of the returns will be within one standard deviation. For example, assuming that stocks are expected to return 8.0% on a compounded basis and the volatility of returns on stocks is 17.0%, in any one year it is likely that two-thirds of the projected returns will be between (8.9)% and 28.8%. But with intermediate government bonds, if the expected compound return is assumed to be 5.0% and the volatility is assumed to be 6.0%, two-thirds of the outcomes will typically be between (1.1)% and 11.5%. Bernstein's forecast of volatility is based on historical data and incorporates Bernstein's judgement that volatility of fixed-income assets is different for different time periods.

7. Technical Assumptions

Bernstein's Wealth Forecasting Analysis is based on a number of technical assumptions regarding the future behavior of financial markets. Bernstein's Capital Markets Engine is the module responsible for creating simulations of returns in the capital markets. These simulations are based on inputs which summarize the current condition of the capital markets as of January 02, 2003. Therefore, the first 12-month period of simulated returns represents the period from January 02, 2003 through January 02, 2004, and not necessarily the calendar year of 2003. A description of these technical assumptions is available on request.

8. Tax Implications

Before making any asset allocation decisions, an investor should review with their tax advisor the tax liabilities incurred by the different investment alternatives presented herein including any capital gains that would be incurred as a result of liquidating all or part of his/her portfolio, retirement-plan distributions, investments in municipal or taxable bonds, etc.

¹ The federal income tax rate represents Bernstein's estimate of either your maximum marginal tax bracket or an "average" rate calculated based upon the marginal rate schedule. The federal capital gains tax rate is represented by the lesser of your maximum marginal income tax bracket or the current cap on capital gains for an individual or corporation, as applicable. Federal tax rates are blended with applicable state tax rates by including, among other things, federal deductions for state income and capital gains taxes. The state tax rate generally represents Bernstein's estimate of the maximum unified rate, if applicable.

NOTES ON WEALTH FORECASTING SYSTEM

9. Tax Rates¹

Bernstein's Wealth Forecasting Analysis has used the following tax rates for this analysis:

| Scenario | Start Year | End Year | Federal Income Tax Rate | Federal Capital Gains Tax Rate | State Income Tax Rate | State Capital Gains Tax Rate |
|----------|------------|----------|-------------------------|--------------------------------|-----------------------|------------------------------|
| Current | 2003 | 2032 | 20.00% | 20.00% | 0.00% | 0.00% |

¹ The federal income tax rate represents Bernstein's estimate of either your maximum marginal tax bracket or an "average" rate calculated based upon the marginal rate schedule. The federal capital gains tax rate is represented by the lesser of your maximum marginal income tax bracket or the current cap on capital gains for an individual or corporation, as applicable. Federal tax rates are blended with applicable state tax rates by including, among other things, federal deductions for state income and capital gains taxes. The state tax rate generally represents Bernstein's estimate of the maximum unified rate, if applicable.