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A Malthusian Analysis of the So-Called Dynasty Trust

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A MALTHUSIAN ANALYSIS OF THE SO-CALLED DYNASTY TRUST

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ABSTRACT

Select financial institutions and members of the Bar have seized upon the presence of the limited exemption from the generation-skipping transfer tax provided under the Internal Revenue Code to promote so-called dynasty trusts as a means whereby individuals can build dynastic wealth for a family forever free from transfer taxes. To realize such benefits, state law that does not impose the Rule Against Perpetuities must govern the trust. The promise of dynastic wealth is unlikely to be realized due to several factors. Administrative and tax costs are likely to reduce the yield on such trusts to a level where inflation, rising expectations, and an ever growing band of beneficiaries are typically assured to outpace the ability of the trust to deliver the benefits anticipated by trust settlors. Whether required under current standards of professional responsibility or not, an understanding of these factors can elevate the quality of service provided by estate planners.

TABLE OF CONTENTS

Under the Internal Revenue Code (Code), individuals are allowed to place an amount of funds equal to the estate tax exemption in a trust, and all distributions from that trust will be free of all transfer taxes as long as the trust endures. This has led a number of states to repeal the Rule Against Perpetuities (RAP) to accommodate wealthy individuals who hope to establish trusts that will provide support for their descendents well into the future. Providers of trust

services have seized upon the opportunity to promote such trusts with the promise of the accumulation of dynastic wealth for the eventual benefit of the settlor's descendents. As part of a clever marketing strategy, these trusts have been called "dynasty trusts" by their promoters. It is the thesis of this article that the promoters promise more than such trusts are able to deliver and that any individual looking to a "dynasty trust" to provide dynastic wealth for descendents had better look elsewhere.

At death, a widow, widower, or a single parent will typically want to transfer most of his or her remaining wealth to any surviving children. Married individuals typically transfer all wealth to the surviving spouse or divide it between the surviving spouse and the couple's children. At the death of the surviving spouse, that individual will typically transfer all his or her remaining wealth to the children. Under this paradigm, assuming the presence of sufficient wealth, there will be an estate tax imposed on each generation as the children follow the pattern established by the parents. As generation after generation follows this typical pattern, tax authorities can expect to collect a transfer tax as often as every twenty-five to thirty-five years.

Prior to the passage of the first generation-skipping transfer tax in 1976,[1] it was common for wealthier families to transfer assets to remote generations, thereby avoiding transfer taxes for several generations. In well-planned estates of extremely wealthy individuals, it was common to transfer wealth, either during life or at death, to trusts that benefited issue of the transferor with avoidance of estate taxes—until the RAP[2] eventually required vesting of interest with respect to trust assets in individuals who, at their death, would generate another opportunity for the imposition of transfer taxes. To cope with this multi-generational avoidance of estate taxes, Congress enacted a generation-skipping transfer tax (GST) in 1976.[3] Later, in 1986, it enacted an improved version of the GST.[4]

Since 1986, the GST has provided a limited exemption from the tax, which is relevant to our considerations.[5] This exemption allows individuals to transfer a limited amount of property to individuals or

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[1] *See* Tax Reform Act of 1976, Pub. L. No. 94-455, § 2006(a) (1976), (codified as amended at I.R.C. § 2601).

[2] JOHN CHIPMAN GRAY, THE RULE AGAINST PERPETUITIES (4th ed. 1942).

[3] Tax Reform Act of 1976 § 2006(a).

[4] Tax Reform Act of 1986, Pub. L. No. 99-514, § 1431(a), (codified at I.R.C. § 2601).

[5] I.R.C. § 2631.

trusts without imposition of the tax. Typically such sums, if not consumed, would be subject to estate tax at the death of the individual transferee or at the death of the individual to whom trust assets were transferred. Moreover, in the case of trusts that made use of the GST exemption, because of the RAP, which required vesting of interest within the Rule's measuring period, even property placed in such an exempt trust would eventually be subject to any estate tax, assuming that assets of sufficient value were present.

In the scenario as outlined above, it is apparent that, in the absence of the RAP, a trust to which assets were transferred with use of the exemption would provide perpetual relief from the estate tax. Focusing on this, and sensing the opportunity to enable local financial institutions and attorneys to harvest a bounty of fees and commissions, a number of states have repealed the RAP.[6] Potential clients are promised that, within a period of years, assets transferred to trusts managed by local financial institutions will blossom into fortunes for the descendents of the transferors that will escape estate taxation forever.[7] For example, Richard Nenno, a leading expert on

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[6] According to a Richard Nenno, a leading authority on dynasty trusts, the following jurisdictions allow perpetual trusts (no RAP): Alaska, Arizona, Delaware, District of Columbia, Idaho, Illinois, Maine, Maryland, Missouri, Nebraska, New Hampshire, New Jersey, Ohio, Pennsylvania, Rhode Island, South Dakota, Virginia, and Wisconsin. Richard W. Nenno, Perpetual Dynasty Trusts: Tax Planning and Jurisdiction Selection (ALI-ABA Course of Study, Apr. 2007), SM077 ALI-ABA 509, at app. D. Moreover, Nenno reports that the following states allow trusts to be formed for very long periods of time: Colorado (1,000 years), Florida (360 years), Nevada (365 years), Utah (1,000 years), Washington (150 years), and Wyoming (1,000 years). *Id.* at § V.D.4.f. In addition, since the publication of Nenno's article, at least three additional states (North Carolina, Tennessee, and Michigan) have repealed or limited their RAP. *See* N.C. GEN. STAT. § 41-23 (2008); TENN. CODE ANN. § 66-1-202(f) (2008) (allowing trusts up to 360 years); 2008 Mich. Pub. Acts 148 (allowing perpetual trusts for personal property only). At least 26 states and the District of Columbia, therefore, have no RAP or have an extremely long period of time that private (as contrasted to charitable) trusts may exist.

[7] The subject is discussed favorably in the popular press. *See, e.g.*, Carole Gould, *Shifting Rules Add Luster to Trusts*, N.Y. TIMES, Oct. 29, 2000; Kiplinger Washington Editors, *An Enduring Trust that Could Work for You*, KIPLINGER'S RETIREMENT REP., May 2005 [hereinafter, *Enduring Trust*]; Rachel Emma Silverman, *Looser Trust Laws Lure $100 Billion: Amid Congressional Scrutiny, Huge Sums Pour Into States That Allow 'Dynasty Trusts'*, WALL ST. J., Feb. 16, 2005, at D1; Rachel Emma Silverman, *Building Your Own Dynasty: States Toss Out Restrictions on Creating Perpetual Trusts; Downside—Fees Last Forever, Too*, WALL ST. J., Sept. 15, 2004, at D1. Those who stand to profit from creation and maintenance of dynasty trusts promote them on the internet. *See, e.g.*, Bob Bauman, *Create a Tax-Free Inheritance Dynasty with Your Assets*, SOVEREIGN SOC'Y, Jan. 17, 2008,

and proponent of dynasty trusts, provides the following contrasting examples—which are admittedly oversimplified—of a dynasty trust funded with $1,000,000 and a bequest that is subject to estate tax at 45% every 25 years:

> Assuming a 3% return, the Exempt Dynasty Trust would be worth $19,218,632 whereas the no trust arrangement would be worth only $1,758,625 at the end of 100 years. Assuming a 10% return, the Exempt Dynasty Trust would be worth $13,780,612,340 whereas the no trust arrangement would be worth only $1,261,012,158 at century's end. These examples, which are oversimplified, assume that either no distributions would be made or that an after-tax return of the indicated rate could be earned despite distributions.[8]

It should come as no surprise that the rush to repeal the RAP has attracted considerable scholarly commentary.[9] Moreover, the

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http://www.sovereignsociety.com/vmembers.php?nid=2449&printable=y (the entity Sovereign Society, which sponsors this site, is an organization dedicated to promoting offshore investing activities); AlaskaUSA Trust Company, Alaska's Unique Benefits, http://www.alaskausatrust.com/trustee/alaskaBenefits.asp (last visited Feb. 6, 2009) (AlaskaUSA is an Alaska trust company); Pioneer Bank & Trust, Trust Services— Dynasty Trust, http://www.pioneerbankandtrust.com/dynasty_trust.htm (last visited Feb. 6, 2009) (Pioneer Bank & Trust is a South Dakota Bank). Richard Nenno of Wilmington Trust Company has made a number of detailed scholarly presentations promoting "perpetual dynasty trusts." *See, e.g.*, Nenno, *supra* note 6. Also, a Westlaw or Lexis search using his name and "dynasty trust" will bring up a considerable number of presentations.

[8] Nenno, *supra* note 6, at § II.B.2.

[9] *See, e.g.*, Mary Louise Fellows, *Why the Generation-Skipping Transfer Tax Sparked Perpetual Trusts*, 27 CARDOZO L. REV. 2511 (2006); Stephen E. Greer, *The Alaska Dynasty Trust*, 18 ALASKA L. REV. 253 (2001); Brian Layman, *Perpetual Dynasty Trusts: One of the Most Powerful Tools in the Estate Planner's Arsenal*, 32 AKRON L. REV. 747 (1999); Max M. Schanzenbach & Robert H. Sitkoff, *Perpetuities or Taxes? Explaining the Rise of the Perpetual Trust*, 27 CARDOZO L. REV. 2465 (2006) [hereinafter *Perpetuities or Taxes?*] (empirically attributing the repeal movement to the GST exemption); Stewart E. Sterk, *Jurisdictional Competition to Abolish the Rule Against Perpetuities: R.I.P. for the R.A.P.*, 24 CARDOZO L. REV. 2097 (2003); Note, *Dynasty Trusts and the Rule Against Perpetuities*, 116 HARV. L. REV. 2588 (2003). Following closely on the heels of the rush to repeal the RAP has been a movement to allow for the establishment of self-settled spendthrift trusts, another unfortunate event that is not the focus of this paper. *See* Robert H. Sitkoff & Max M. Schanzenbach, *Jurisdictional Competition for Trust Funds: An Empirical Analysis of Perpetuities and Taxes*, 115 YALE L.J. 356, 378–85 (2005) [hereinafter *Jurisdictional Competition*]. It should come as no surprise that some of the very states that took the

government has also focused on the possibility of repealing the GST exemption that makes the dynasty trust possible.[10] Although the authors are personally disappointed with the wholesale rush to repeal the RAP and also believe that something should be done to cabin the GST exemption, those concerns are not the focus of this article.

The purpose of this article is to illustrate that, although use of the GST exemption to permanently avoid estate tax may make good sense from an estate planning standpoint, it is unlikely to create dynastic wealth for a number of reasons. The cost of managing and maintaining such wealth, normal income tax burdens, and other associated costs will all conspire to cut back on the explicit or implicit promise made by promoters of dynasty trusts. Additionally, inflation, rising expectations, and an ever-growing army of surviving descendents of the settlor and their dependents will encroach on the real value to a family of the accumulated wealth. In most cases, families will be extremely lucky if the growing funds in the trust keep up with the growing appetites and the number of outstretched hands on the other side of the equation. The purpose of the article is not to argue against use of the GST exemption in the post-RAP world but rather to demonstrate that, in all but a few lucky cases, settlors of dynasty trusts are unlikely to actually establish dynastic wealth with their so-called dynasty trusts.[11] Moreover, in the wrong circumstances,

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lead in the race to repeal the RAP, likely motivated by the same interest in creating a local trust business, also have led the movement to allow for self-settled spendthrift trusts. *See, e.g.*, ALASKA STAT. § 34.40.110 (2008); DEL. CODE ANN. tit. 12, § 2571 (2007); NEV. REV. STAT. § 166.040(1)(b) (2008); R.I. GEN. LAWS §§ 18-9.2-2 to -5 (2003); S.D. CODIFIED LAWS §§ 55-16-1 to -16 (2007); UTAH CODE ANN. §25-6-14 (2007).

[10] *See* STAFF OF JOINT COMM. ON TAXATION, 109th CONG, OPTIONS TO IMPROVE TAX COMPLIANCE AND REFORM TAX EXPENDITURES, at 392–95 (Joint Comm. Print 2005). The chair of the Senate Finance Committee and the ranking member of the minority charged the staff to, among other things, make recommendations to close loopholes. The dynasty trust was one of the abuses singled out for attention. Basically, the staff recommended that the exemption be limited to a skip of one generation and no more. No action has been taken to date.

[11] The threshold for "dynastic wealth" is open to debate. It is instructive that, according to the United States Census Bureau, in 2006, household income of $174,012 would be required for a family to rank in the top 5% of all households—hardly a sum that would make most readers feel that they had reached the level of dynastic wealth. U.S. Census Bureau, Historical Income Tables—Households, Table H-1, http://www.census.gov/hhes/www/income/histinc/h01ar.html (last visited Feb. 9, 2009). As will be apparent in most cases, it will be impossible for individual beneficiaries of dynasty trusts to receive this level of support from a dynasty trust. In some cases, intact families of modest size may receive support from such a trust that will place it

for example estates where, due to their size or a repeal of the estate tax, no tax will be due from successor generations, such trusts are likely to impose additional unnecessary expenses that will actually diminish future family wealth.[12]

This article will first discuss the basic structure of the GST and how its exemption can be used to permanently escape estate taxes. Next, it will discuss the march toward repeal of the RAP across the states. This will be followed by a discussion of the cost factors that are likely to reduce the yield for generation-skipping trusts. This leads to a discussion of the erosion of the value of trust corpus caused by inflation, rising expectations, and a growing army of trust beneficiaries who will look to the trust for support. These considerations will then be presented in a series of mathematical formulae. Lastly, there will be a discussion of the real, but limited, value such trusts can have for families.

I. THE GST EXEMPTION

The generation-skipping transfer tax, which generally seeks to insure payment of a transfer tax at least every generation, is imposed at a rate of 45% on all generation-skipping transfers.[13] "Direct skips," "taxable terminations," and "taxable distributions" are the three types of transfers that are taxed under the GST.[14] A "direct skip" is a transfer to a "skip person," who is an individual two or more generations younger than the donor.[15] Because this article is only

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within the top 5% of all households, although the authors would be wont to classify such families as living the life of the dynastically wealthy. *See infra* Appendix.

[12] To guard against such eventualities, a well-drafted trust should contain a provision that allows for termination of the trust.

[13] *See* I.R.C. § 2601 (establishing the existence of the GST tax); I.R.C. § 2641(a) (incorporating the maximum Federal estate tax rate into the GST tax rate); I.R.C. § 2001(c)(2)(B) (declaring the current maximum Federal estate tax rate to be 45%).

[14] I.R.C. § 2611.

[15] *See* I.R.C. §§ 2613, 2651. The spouse of a donor is always deemed to be in the same generation as the donor, regardless of their disparity in ages. If family members are involved, generations are determined based on common understanding. For example, a transfer from a grandparent to a grandchild would involve a generation skip (unless the child of the donor from whom the grandchild is descended is dead, in which case no skip would be present). Where individuals are not lineally related, generations are deemed to consist of age cohorts that are within 25 year bands and an individual born within 12 ½ years of the donor is deemed to be of the donor's generation with the result that for a generation-skipping transfer to be present, the donee must be at least more than 37 ½ years younger than the donor.

concerned with dynasty trusts, direct skips need not concern us further. Taxable terminations and taxable distributions involve property held in trust and will consequently be of concern to our examination of dynasty trusts.

A taxable distribution is a distribution from a trust of property to a person who is a skip person. For example, if a grandmother established and funded a non-exempt trust, which then transferred trust corpus or trust income to a grandchild or to a great-grandchild, such a transfer would be a "taxable distribution," and GST would be due at the rate of 45%.

A taxable termination involves the termination of an interest in a trust by death, passage of time, or release of a power which commonly, although not always, results in the receipt by a skip person of either trust corpus or income. For example, assume a grandfather established and funded a trust with his son as income beneficiary, and at the death of his son, the son's children were to succeed him as income beneficiaries. At the son's death there would be a taxable termination (of son's interest) triggering a GST tax on the underlying trust property. Similarly, if the trust instrument called for termination of the trust at the son's death and distribution of trust corpus to the son's children, any such distribution at son's death would constitute a taxable termination.

Congress decided that not every generation-skipping transfer need be taxed. Two significant exemptions are provided. First, the GST does not apply to inter vivos gifts involving direct skips which are exempt from gift tax under either the annual per donee exemption (currently $13,000)[16] or the exemption for education and medical expenses.[17] Second, and most important for our purposes, each donor is entitled, pursuant to Code section 2631, to a lifetime exemption from GST equal to the amount of the estate tax exemption. This means that the amount of the GST exemption for 2008 was $2,000,000 and for 2009 it is $3,500,000.[18] For example, assume that a grandfather established and funded a $2,000,000 trust in 2008 in a jurisdiction which did not have the RAP. Assume further that his trust provided

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[16] I.R.C. § 2503(b). This exemption is available only if the transferee is an individual or a trust with a single beneficiary. The amount of this exemption may be doubled if the spouse of the donor allows the donor to make use of the spouses annual per donee exemption. I.R.C. § 2513(a)(1).

[17] I.R.C. § 2642(c).

[18] I.R.C. § 2631. As in the case of the annual per donee exemption, this amount may be doubled if one spouse allows the other to use her or his lifetime GST exemption. I.R.C. §2513(a)(1).

that, for the first 50 years, all trust income and gains from sales of trust assets were to be retained by the trust, and thereafter income was to be distributed per stirpes to his living issue. Finally, assume that grandfather also elected to use his GST exemption to cover the trust. The result would be that neither the taxable transfer nor the taxable distribution rules of the GST would apply to the trust, and no estate tax would ever be due on any assets held in the trust. This is the exemption that promoters of dynasty trusts seek to exploit. They promise would-be settlors dynastic wealth based on freedom from transfer taxation up to the amount of the exemption, simply by moving trust assets to their jurisdiction and compounding interest forever.

II. RIP FOR RAP

The nonexistence of the RAP in a jurisdiction is key to the promise that transfer taxes will be avoided forever by use of the GST exemption. The classic articulation of the RAP was provided by John Chipman Gray: "No interest is good unless it must vest, if at all, not later than twenty-one years after some life in being at the creation of the interest."[19]

The consequence of the RAP for those who may wish to avail themselves of the exemption provided by Code section 2631 and establish a dynasty trust is that, within the measuring period of the rule, the trust would have to be terminated and the property would eventually be subject to transfer tax liability at the time it is transferred by its owner either by gift or devise. Thus, to establish a dynasty trust that will escape transfer tax liability forever, it is essential that the law of a jurisdiction that has repealed the RAP govern the trust.

Idaho and Wisconsin had effectively abolished the RAP prior to the passage of the GST.[20] A number of states have more recently

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[19] GRAY, *supra* note 2, at 191. Despite its seeming simplicity, the RAP has proven to be one of the more complicated rules with which property lawyers must deal. Professor Haskell, a distinguished authority on the law of trusts, has called it "one of the most difficult areas of our law." Paul G. Haskell, *A Proposal for a Simple and Socially Effective Rule Against Perpetuities*, 66 N.C. L. REV. 545, 545 (1988).

[20] Although each of these states can be said to have repealed the RAP, they had required that a trust holding assets must be able to alienate those assets within the conventional RAP measuring period—a life in being plus twenty-one years. IDAHO CODE ANN. § 55-111 (2008); WIS. STAT. § 700.16(1)(a) (2007). Among those states which have subsequently abolished the RAP, apparently only Rhode Island has not

seized upon the opportunity created by the new tax and its exemption by effectively repealing their RAP.[21] Apparently, the primary motivation was to attract trust business to the repealing state which would enrich local financial institutions and members of the bar.[22] South Dakota, Delaware, and Alaska led the race to the bottom, or top, as one's perspective would dictate.[23] At last count, at least twenty-six states and the District of Columbia had repealed their RAP,[24] and the trend is for still others to do so in the near future as states seek to catch-up with their rivals in attracting trust activities and legal work to their jurisdictions.

It is no surprise that this development has given rise to a storm of scholarship[25] commenting on various aspects of this rather sudden development in an area of the law where things seem to move at a leisurely pace. A common theme is the potential that trusts, unencumbered by the RAP, have to build dynastic wealth for families. Consider the following:

> A dynasty trust can rank right up there with dogs and diamonds as man's and woman's best friends. And the more affluent you are, the more valuable the trust may be to you and your heirs. A dynasty trust can cut a taxable estate, shield appreciating assets from estate and generation-skipping transfer taxes for decades, and ensure that they pass to your grandchildren and great-grandchildren. And it's a popular strategy: States that have relaxed their laws on the lifespan of trusts have seen an influx of billions of dollars in trust assets.[26]

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imposed the requirement that the trustee holding trust assets must be able to alienate those assets within the normal RAP period. Note, *supra* note 9, at 2591.

[21] *See* Schanzenbach & Sitkoff, *Perpetuities or Taxes?*, *supra* note 9, at 2474–75; Sterk, *supra* note 9, at 2102–04; Note, *supra* note 9, at 2593. Obviously, we are indebted to Professor Sterk for coming up with the catchy phrase "RIP for RAP", which we have embraced in the text.

[22] Sterk, *supra* note 9, at 2103–04.

[23] *Id.* at 2101–02. South Dakota actually had repealed its RAP in 1983, seven years after passage of the 1976 version of the GST, as part of an overall program to make its laws more attractive to financial institutions. It was not until replacement of the 1976 GST with the 1986 version of the GST that the real race to repeal RAP began in earnest.

[24] *See supra* note 6.

[25] *Id.*

[26] *See Enduring Trust,* supra note 7.

Such promises may appeal to those contemplating placing some of their wealth in a dynasty trust. In addition, the hype is helpful to those who make a living setting up and managing such trusts. When one takes a closer look, however, at the real costs and benefits involved and then measures them against the likely needs and expectations of the settlor's descendents, the promise of dynastic wealth tends to slip away.

III. EVALUATING THE CLAIMS OF DYNASTY TRUST PROMOTERS

To properly evaluate the potential of so-called dynasty trusts to build dynastic wealth, it is necessary to estimate several likely net returns on investments that will be realized by a dynasty trust over a period of years. This value should next be measured against the impact of both inflation and rising expectations of trust beneficiaries. Consideration of the impact of rising expectations as well as inflation is important as very few, if any, typical members of a younger generation would be happy with the standard of living prevailing at the time that the trust was established. It will also be essential to consider that, as a typical family progresses through the decades, new living members will be added to the family tree at a geometric rate, and older members, after typically spending scores of years as beneficiaries of the trust, will pass from the tree at a slower rate than new beneficiaries are being added.[27] All the forgoing factors will, in most cases, impact negatively on promises of promoters to create dynastic wealth, thereby turning a typical "dynasty trust" into a tax sheltered family support trust of limited, but welcome, worth. To gain an appreciation of how such factors will impact typical dynasty trusts, it is necessary to consider each of the above factors separately.

A. The Gross Rate of Return

Dynasty trust assets are likely to be invested in a portfolio that provides a relatively stable rate of return over the years and maintains the trust corpus in a highly liquid form that will facilitate eventual distributions to trust beneficiaries. An investment strategy that includes the common stock of large companies is consistent with these

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[27] To understand this point, it may be helpful to envision a family tree as a pyramid with members of the most senior generation at the top and members of the most junior generation at the base. As members are carved off by death at the top of the pyramid, those added at the bottom are likely to exceed in number those removed from the top.

goals. It is also possible that a trustee could decide to vary trust holdings and create an admixture of large and small equities and government and corporate indebtedness instruments. The following chart, which is based on historic rates of return from 1925 to 2005, indicates the gross return that is likely to be realized by each of the possible investment choices over the years.

Table 1: Average Annual Total Return on Liquid Investments[28]

Investment	Average Return
Large Company Stocks	10.4%
Small Company Stocks	12.6%
Long-Term Corporate Bonds	5.9%
Long-Term Governments	5.5%
Intermediate-Term Governments	5.3%
U.S. Treasury Bills	3.7%
Inflation	3.0%

To evaluate the rate of return realized by a dynasty trust, it is important to consider at least four other factors: (1) costs associated with generating the return to arrive at a net rate of return; (2) the

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[28] IBBOTSON ASSOCIATES, STOCKS, BONDS, BILLS, AND INFLATION 2006 YEARBOOK 31 tbl.2-1 (2006). The figure provided is the geometric mean. This is a mean that is used when the first number in a series is multiplied by, rather than added to, the second number (and following numbers) in a series. It is typically used to average rates of return to reflect compounding of both gains and losses. This should be contrasted with an arithmetic mean which merely averages all rates of return and can thereby produce inaccurate results. The geometric mean is determined by multiplying a sequence of numbers in a series (set n) by each other and then taking the nth root of the product. It is most commonly used when one is attempting to determine the average rate of return (the rate that would have to be realized each year) when rates of return vary from year to year. For example, if an investment realized a rate of return of 20% in the first year and 60% in the second year, the geometric mean rate of return would be 38.56%, whereas the arithmetic rate of return would be 40%. The accuracy of the geometric mean can be verified by the fact that multiplying $100 by 1.3856 twice will yield the same sum ($191.99) as will multiplying $100 by 1.2 and then multiplying that result ($120) by 1.6. On the other hand, using the arithmetic mean as an interest rate to determine the compounded return would result in the investor erroneously determining that he had an investment worth $196.00. Throughout this Article any reference to "average" for terms such as rates of return and tax rates shall be deemed to refer to the geometric mean.

The results above for small cap companies are likely to be difficult to replicate given experiences in the market over the last half century. For example, the Vanguard Small Cap Index Fund reports that since its inception on October 3, 1960, its value rose at an average rate of 9.47%. Vanguard Small-Cap Index Fund Investor Shares, https://personal.vanguard.com/us/funds/snapshot?FundId=0048&FundIntExt=INT#hist::tab=0 (last visited Feb. 12, 2009). The return had been reduced because of recent turmoil in financial markets. In recent years, Vanguard has introduced so-called Admiral shares that benefit investors with large holdings. These shares, due to lower management fees, are likely to grow by an additional 0.11%. Vanguard Small-Cap Index Fund Admiral Shares, https://personal.vanguard.com/us/funds/snapshot?FundId=0548&FundIntExt=INT#hist::tab=1 (last visited Feb. 12, 2009).

impact of inflation on the return; (3) the impact of rising expectations in the generations which will be receiving distributions from the trust; and (4) the number of beneficiaries who are likely to be enjoying the distributions from the trust.

B. *Typical Trust Costs*

The typical trust will confront a number of costs that will cut into the gross yield on investments and thereby diminish the rate at which trust corpora will increase over the years. Among the costs that one would expect to encounter are the following: trustee fees for taking custody of the trust corpus, investment expenses, and expenses associated with the employment of professionals such as tax preparers, accountants, and lawyers.[29] In addition, one would expect that tax liabilities of the trust would reduce the annual rate of return. The impact of these items will be discussed below.

1. Trustee Fees and Investment Expenses

According to two highly knowledgeable sources,[30] the amount charged by a bank or trust company for custodial and investment services will vary considerably. Among the factors that are likely to impact the fees are: (1) whether the custodial institution has an existing relationship with the family and as a consequence has a significant amount of wealth under management for the family;[31] (2) the amount and quality of the services that are rendered;[32] (3) whether

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[29] One would expect that, in the early days of a trust, tax returns could typically be prepared by the trustee at little expense. As time passes and the trust grows, it would be expected that professional outside tax preparers would be involved. *See* Telephone Interview with Joel Pineles, President & Richard Yeomans, Vice President, Piedmont Financial Trust Company (Feb. 22, 2008). Piedmont Financial Trust Company is a private trust company that manages the financial affairs and investments for an extended single wealthy family.

[30] *Id.*

[31] For example, if the family has considerable wealth under management with the institution, the trust may only be charged a modest trust management and custodial fee in the range of 0.4–0.5%; whereas if there is no existing relationship of substantial magnitude, one may expect to be charged combined custodial and investment management fees in the range of 1–1.2%. In addition, one would also expect to encounter a charge for investment management and normal trading expenses and brokerage commissions. See *id.*

[32] Dealing with a complicated trust instrument or a contentious family could be expected to drive up the fees that would be charged by a financial institution. *See id.*

plain vanilla or sophisticated investment services are provided;[33] (4) the type of investment and management services that must be provided;[34] and (5) whether it is necessary to involve outside professionals in dealing with complicated legal and investment activities.[35] When all is said and done, absent an existing relationship with a financial institution where the presence of great wealth already under management is likely to result in significant discounting, one could expect that custodial fees, investment expenses, and other professional fees are likely to result in a total diminution of gross investment returns by something in the neighborhood of 1–2% of corpus, with the likely cost lying somewhere in between.[36]

2. The Tax Burden

A settlor of a dynasty trust invariably will want the trust to accumulate all income for a long period of time so that it grows to the maximum amount that is reasonably prudent prior to making distributions. To do otherwise would diminish the capital held by the trust that will benefit from the "magic" of compound interest. For example, if a trust realizes a net return of 8% but makes an annual distribution of 2%, the trust will be growing at the lower rate of 6%.[37]

Unfortunately, for those trust settlors who wish to build dynastic wealth, income that is accumulated by a trust and is not distributed is subject to taxation at sharply escalating rates. For tax years beginning

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[33] Use of a bank's comingled investment trust would be expected to keep investment and custodial fees down at the lower range of the spectrum (0.6–0.7%), whereas investment in conventional long-term equity holdings would result in expenses at a higher range (0.8–1.5%) and more aggressive investment strategies would result in even higher fees (2–3%). *See id.*

[34] For example, if the trustee were responsible for management of a farm, a business, or rental real estate versus being allowed to merely invest all trust funds in an index fund, one would expect to find considerable variance in the fees charged by the financial institution trustee. *See id.*

[35] Hiring attorneys to engage in litigation (e.g., to deal with contentious beneficiaries) or tax professionals to prepare complicated tax returns or handle disputes with the Internal Revenue Service (Service) are examples of situations that would result in significant costly expenditures involving outside professionals.

[36] See *supra* notes 29–34 and accompanying text.

[37] The significance of this can be demonstrated by the fact that a trust with an initial corpus of $1,000,000 that grows at a rate of 6% per year will be worth $18,420,136 at the end of fifty years. This should be contrasted with a trust that realized an 8% rate of return over the same period of time. This latter trust would, at the end of the fifty year period, have a value of $46,901,572.

in 2009, by the time accumulated income exceeds $ 11,150, it is taxed at the top rate of 35%.[38] At present, dividends and long-term capital gains are taxed at a maximum rate of 15%[39] rather than the 35% rate that may otherwise prevail. These preferential rates for dividends and capital gains are of recent vintage and may prove to be only temporary. Consequently, settlors of dynasty trusts confront a difficult and unpredictable task in estimating the degree to which taxes will impact the net return realized on the trust corpus. To cope with the issue of capital gains taxes, the option of investing trust corpus in a tax-managed index fund[40] is an alternative. This path, however, may have a negative impact on investment returns.

The potential negative impact of state income taxes on trust income can be dealt with by selecting, as a situs for the trust, a state that does not impose state income taxes on accumulated trust income. Indeed, Professors Sitkoff and Schanzenbach have demonstrated that unless a state that has repealed its RAP also provides an exemption from income taxes for accumulated trust income, the state is unlikely to realize any measurable increase in trust service activities for financial institutions located within the state.[41]

When all is said and done, one can reasonably expect that the impact of federal income taxes on net trust income will be to reduce it by something between 4% and 35%. The range would depend on the type of investments chosen for the trust. For example, if trust income were derived from investments that were subject to tax at the top 35% rate, the impact on the trust's net rate of return would be to reduce the net return by 35%. Whereas, had trust assets been invested in a tax-managed portfolio (perhaps in a tax-managed mutual fund) of common stock, the negative impact of taxes on the trust's rate of

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[38] *See* I.R.C. § 1(e). The tables for taxation of trusts and many other entities are revised annually to adjust for inflation. The threshold of $11,150 for imposition of the maximum rate on accumulated trust income for 2009 was promulgated by the Service in Rev. Proc. 2008-66, 45 I.R.B. 1110.

[39] *See* I.R.C. § 1(h).

[40] A tax-managed fund is one in which investments are managed to minimize passing any taxable gains out to investors. This is typically done by investing in assets that produce only small amounts of taxable income each year (which, if possible, is taxed at a reduced rate), but produce significant amounts of unrealized gains each year. This often involves minimizing turnover of assets, as is done by an index fund, and by matching up sales at a gain of investment securities held by the fund against sales of such securities at a loss. Many large index funds attempt to tax-manage fund investments.

[41] Sitkoff & Schanzenbach, *Jurisdictional Competition, supra* note 9.

return would be in the neighborhood of about 4%.[42] This 4% effective rate on trust investment returns is based on the assumption that all assets are invested in stock that qualifies for the 15% maximum tax on dividends, appreciation in trust assets plus dividend income approximates 10% per year, dividends approximate 2% of the trust corpus, and no taxable capital gains are realized due to tax-management of the portfolio. This set of assumptions is likely implausible to realize over an extended period of time. Moreover, it must be considered that even this low effective rate of 4% is predicated on the 15% tax on capital gains and dividends lasting indefinitely, something that requires a head in the sand approach toward the present political environment and budgetary deficit.[43]

In most cases, one would expect that the impact of federal taxes would rise somewhat above this 4% figure but that it would still skew toward the low end of the range, perhaps consuming something close to 8–10% of the total annual increase in the trust corpus. Given that the goal of establishing a dynasty trust would be significantly frustrated by an investment policy that resulted in the payment of significant taxes, the trustee would favor investments that minimized the tax burden borne by the trust on undistributed income.[44] It must

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[42] For example, assume that dividends approximating 2% of the value of stocks (close to the dividend return on the S&P 500) held by a mutual fund were all that was received in the form of taxable income and they are taxed at 15%. This would likely reduce the return on dividends by about an absolute 0.3% (2% minus tax on that sum at the rate of 15%). If the net pretax return were 8% (including stock appreciation and dividends) the return would be reduced by 3.75% to a net of 7.7%. Of course, if the trust had invested in assets that produced a return that was fully taxable, then, given a maximum rate of 35%, the trust's income would be reduced by 35%. Quite obviously, a well managed dynasty trust is likely to avoid such investments and will likely concentrate on investments that produce little annual taxable income but rather experience significant appreciation in the underlying asset pool, such as a tax-managed mutual fund.

[43] The Center for Budget and Policy Priorities has estimated that if federal government spending and tax policies that had prevailed through 2008 had continued, the deficit as a percent of gross domestic product would rise from 1.7% to 1.9% from 2008 to 2018. *See* JAMES R. HORNEY, CTR. ON BUDGET & POLICY PRIORITIES, CONGRESSIONAL BUDGET OFFICE SEES NO SIGNIFICANT IMPROVEMENT IN BUDGET OUTLOOK (2007), *available at* http://www.cbpp.org/8-23-07bud.htm.

[44] For example, a trustee may decide to invest in speculative realty that produces no periodic income with the goal of realizing capital gains on the investment and thereby reaping the advantage of deferring taxes far into the future when the property is sold. Unfortunately, implementation of such a strategy, although perhaps worthy for an individual may involve the trust in management activities and fees that would consume any tax savings. Moreover, the trustee's fiduciary duty toward the

also be conceded that such a strategy would result in some loss of flexibility that would have, at least, a modest negative impact on gross negative total return.

C. The Impact of Inflation

All too often, investors overestimate the real return that they are receiving on investments by failing to take into account the corrosive effect of inflation on their investments. Moreover, given that investors are taxed on the portion of their gains that merely represents inflation, they are actually being taxed on their real returns at a higher effective rate than the stated rate of an income tax.

As Table One indicates, inflation has historically run at the rate of about 3% per year.[45] Roughly speaking, that means that if one were to realize a net return of 8%, after accounting for trust costs, investment expenses and taxes, the real inflation adjusted return would be close to 5%. For the fifty year period from 1956 to 2006, the impact of inflation meant that it would take $7.41 in 2006 to have the equivalent purchasing power of $1.00 in 1956.[46] As will be discussed below, to gain a measure of the value of a return on an investment that will be used to finance consumption by an individual or a group of individuals in the future, it is also necessary to account for rising expectations as subsequent generations seek to maintain their standard of living relative to society.

D. The Issue of Rising Expectations

Settlors of dynasty trusts are likely to wish to do more than provide an inflation adjusted pool of income for future beneficiaries. It is quite likely that settlors would hope to allow their family to maintain the family's relative standard of living in the larger society — the macroeconomic equivalent of "keeping up with the Joneses." If trust distributions are to maintain a family's relative place in the standard of living pecking order, it will be necessary for investments to do more than merely keep up with inflation. For example, because

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beneficiaries would normally bar such a strategy unless the trust instrument explicitly authorized the investment strategy and held the trustee harmless in the event it produced unsatisfactory results. Given the normal expectations of settlors, such steps would be most unusual.

[45] *See supra* note 28 and accompanying text.

[46] BUREAU OF LABOR STATISTICS, CPI INFLATION CALCULATOR, http://data.bls.gov/cgi-bin/cpicalc.pl (last visited Feb. 20, 2008).

the market basket of a typical middle class American now consists of central air conditioning, two cars per family, built-in cook tops, and self-cleaning wall ovens instead of the fans, a single automobile, and free standing ranges that comprised the middle class American market basket fifty years ago, measuring the inflation of the latter market basket is deceiving.

Determining precisely how much the standard of living has risen in a given period of time and then adjusting it for inflation could prove to be a difficult task. Fortunately, the Social Security Administration, (SSA), as part of its obligation to adjust the benefits formula to account for both inflation and the rise in the standard of living over the years, is required to calculate the "national average wage index."[47] This figure provides a fairly accurate means of adjusting amounts for both inflation and rise in the standard of living. For example, the national average wage for 1956 was $3,532.36 whereas by 2006, it had risen to $38,651.41,[48] reflecting both inflationary forces and rise in the standard of living. The ratio of the 1956 figure to the 2006 figure is 1:10.94. To put it differently, the "national average wage" has been increasing over the last fifty years at an average rate of about 4.9%.[49] The principal reason this figure exceeds the mere increase due to inflation is the rise in the standard of living that followed from the real increase in the power of earnings over the period in question.

IV. MALTHUS ENTERS THE PICTURE

In *An Essay on the Principles of Population*, Thomas Malthus, an Anglican priest who had majored in mathematics at Cambridge, argued that given that population increased geometrically, whereas it was only possible to add new farmland to production arithmetically, near famine and resulting warfare over food resources were inevitable.[50] Modern agricultural techniques, extensive use of fertilizers and pesticides, as well as new crops have all combined to keep Malthus' predictions from becoming a reality. His basic

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[47] *See* SOCIAL SECURITY ADMINISTRATION, AUTOMATIC INCREASES, NATIONAL AVERAGE WAGE INDEX, http://www.socialsecurity.gov/OACT/COLA/AWI.html (last visited Feb. 12, 2008).

[48] *Id.*

[49] At a rate of 4.9%, the ratio of the 1956 average national wage to the 2006 average wage would actually be 1:10.93 rather than the actual ratio of 1:10.94. The difference is statistically insignificant.

[50] *See* THOMAS MALTHUS, ESSAY ON THE PRINCIPLE OF POPULATION (GBR ElecBook 2001) (1798).

observations, however, have considerable application to our situation. Families, like national populations, increase geometrically, and unless resources in a dynasty trust grow at a rate sufficient to keep up with the expectations of the ever increasing living members of the beneficiary class who will look to the trust for support, the demand for distributions from the trust will eventually exceed the ability of the trust to satisfy that demand.[51]

Before discussing the impact of geometric growth of population any further, a simple example based on the actual facts of the family of one of the authors may help to establish the basic nature of the problem. Fifty years ago, one of us and our brother and sister and were teenagers. Assume that one of our parents (they are recently deceased) then placed $1,000,000[52] in a trust that would be forever free from estate taxation and that the trust after accounting for all investment and administration expenses and income taxes produced an annual net rate of return of 8%,[53] resulting in a total trust corpus worth $46,901,572.[54] Fortunately for us and unfortunately for any

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[51] The issue of a growing number of beneficiaries over the course of the decades for perpetual trusts, principally as it applies to growing complexity for trust administrators, is briefly discussed at Jesse Dukeminier & James E. Krier, *The Rise of the Perpetual Trust*, 50 UCLA L. REV. 1303, 1339 (2003).

[52] We have chosen to use $1,000,000 as the starting point for the illustration for purposes of simplicity. If any reader is tempted to object on the ground that in 2008 the GST exemption was $2,000,000 and in 2009 it is $3,500,000, we would note that using $1,000,000 actually likely gives a reader an excessively optimistic outlook on the power of a dynasty trust in the present era. If we were to presume that the inflation adjusted equivalent of the $3,500,000 exemption ($472,335) had been used to fund the trust fifty years ago, then we would have to adjust the amount in the trust today to reduce it to 47.23% of the $46,901,572 figure or $22,153,254 or a little less than $1,000,000 per beneficiary in the example, hardly a sum that anyone would consider sufficient to support a dynastic lifestyle for the twenty-three beneficiaries.

[53] A net return to the trust of 8% was chosen for the example based on the following considerations. First, using Ibbotson data, we settled on a starting point of a rate of return of 10.4% based on the return on large company stock. *See supra* note 28 and accompanying text. We then reduced this gross figure by 1.5% to reflect the impact of custodial fees, investment expenses, and the like. *See supra* notes 30–36 and accompanying text. This was then further reduced by 0.9% to reflect what we presumed would be the expected income tax burden on accumulated income. *See supra*, notes 37–44 and accompanying text. To present the impact of somewhat lower costs and taxes, a net return of 8.5% is also discussed below on occasion with scant appreciable negative impact on the basic thesis of the article.

[54] The rate of return realized is of extreme importance because, over a long period of time, even a slightly higher or slightly lower rate of return can produce markedly divergent results. For example, if, in the above example net rates of return of either 7.5% or 8.5% had been chosen, at the end of fifty years the original

plans that our parents may have had to forever provide for descendents in a grand style, each married and had children in modest numbers and some of those children have also married and had children, although several of our parents' grandchildren have not yet reached the stage of family formation and it is impossible to say if those who have had offspring will have more. All of the family, including spouses and offspring, who are represented in the chart below, now number twenty-three and, as one may conclude, that number is likely to grow a bit and it is hoped that death does not shrink the family's numbers for several decades.[55]

Table 2
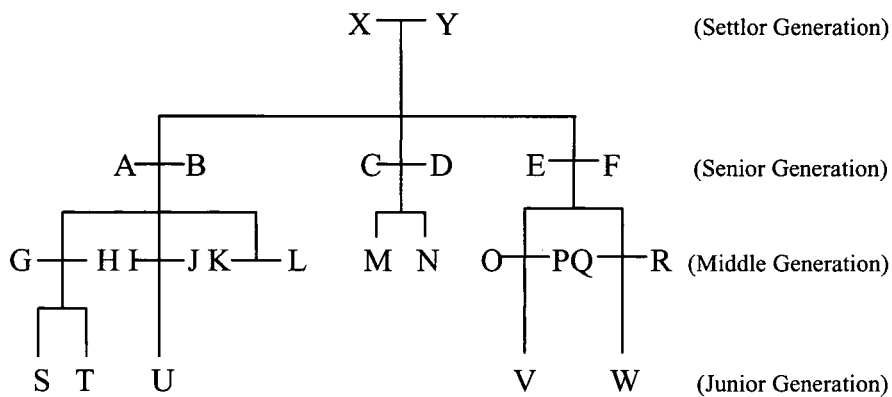
Although the corpus of the trust, in going from one million to nearly forty-seven million dollars, has outpaced the number of individuals looking to the trust for support, our analysis must not stop here. We next must consider the impact of both inflation and rising expectations. As already noted, using SSA data, we have learned that for the fifty year period from 1956 to 2006, the ratio of 1956 average wages to 2006 average wages is almost one to eleven.[56] That means to get an idea of the purchasing power of our almost forty-seven million dollar trust corpus and its ability to produce income to satisfy the demands of our family we would need almost eleven dollars to replace the purchasing power of each of our 1956 dollars. To put it another

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$1,000,000 investment would have been worth $37,189,705 and $59,086,259 respectively.

[55] The oldest in the senior generation is 69. According to unisex life expectancy tables, this individual has a remaining life expectancy of 17.8 years. *See* I.R.S. Pub. 590 app. c.

[56] *See supra* note 47 and accompanying text.

way, adjusted for inflation and the corrosive effect of rising expectations generated by a rising standard of living, we would need $4.27 today to replace each 1956 dollar. Unfortunately, our group of family members who could look to the trust for support has gone from three to twenty-three, or to put it simply, while our adjusted resources have a bit more than quadrupled, our outstretched hands have gone up between seven and eight fold and more may be on the way. One could criticize the forgoing analysis because it assigns an equal amount of resources to each member of the extended family. It might be more appropriate to allocate a lesser share to each member of a married couple and an even lower amount to minor children. For example, if we assigned a 150% share to each married couple and a 25% share to each minor child, then we would have only 15.25[57] support units rather than the twenty-three support units in the original analysis. Dividing that sum by our three original family members would still leave us with a result in which our support units had more than quintupled whereas our adjusted resource pool had slightly more than quadrupled. Simply put, a dynasty trust will have great difficulty keeping pace with inflation, rising expectations, and a geometrically growing family even though the trust investments grow geometrically.

The news gets worse for dynasty trusts. As soon as we start accessing the trust income, the rate at which trust assets are increasing will decline.[58] Even modest access to a portion of the income can have a significant effect. Suppose that, in our example, we decided to use only three percent of trust assets each year to support the extended family. If we assume an annual net rate of return after all expenses and taxes of 8%, this would result in close to a static rate of return adjusted for inflation and rising standard of living, because as has been developed above, given the experience of the last fifty years, we

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[57] There are eight married couples (three in the senior generation and five in the middle generation) to which twelve support units would be allocated under the support formula outlined above, two support units for the two unmarried adults in the middle generation and one and one-quarter support units for the five individuals in the junior generation for a total of fifteen and one-quarter support units. Quite obviously, by assuming even lower support shares for married couples and for minors, it would be possible create a scenario in which the dynasty trust would come up a winner. The authors are of the opinion that the assumptions of 25% shares for minors and 150% shares for married couples is most reasonable and perhaps a bit too conservative. For example, children can add significantly to a family's housing needs and the cost of private primary, secondary, and higher education can be great.

[58] It is quite likely that delaying access to the trust for extremely long periods will prove impractical given that few members of subsequent generations will be enthusiastic about living diminished lives for the sake of unborn future generations.

need a return of approximately 4.9%[59] per year just to keep pace with the average national wage. Given that the family is likely to continue to grow geometrically whereas the trust will remain virtually static when adjusted for inflation and rising expectations generated by a rising standard of living, succeeding generations will see their relative shares shrinking dramatically as the years slip by.

We should also consider several additional factors that could make our projections even lower. First, the above example involves a rather typical middle class family in which there are no members with what one might consider an exceptional number of offspring. The pressure of meeting the cost of raising offspring is likely to impact negatively on family size in families of normal means. In a family with considerable wealth, such pressure is lessened and family size may be slightly larger than those in the example. Second, because all the members in the middle generation are of child-bearing ages (ranging in age from twenty to thirty-eight), the family in the example is likely to have several additional members added at the most junior generation. Third, our example has no situations in which the junior generation has married and procreated prior to the death of the senior generation.[60] Given increasing life expectancies, such possibilities cannot be ruled out. Fourth, the example does not illustrate the impact of divorce, in which one or more members could be supporting an ex-spouse, or two, as well as a spouse and several step-children as well as offspring. Any such development would merely provide additional pressures on the need factor and further erode our "dynasty" trust.

There are a few solutions that are available to us to alleviate the dire projections for typical dynasty trusts. The most obvious one is probably the most difficult one to attain. We could realize a significantly higher rate of return. Quite obviously this is easier to hope for than to achieve. Professor Burton Malkiel has, in a fairly

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[59] *See supra* note 49 and accompanying text.

[60] For example, in our situation the most senior member of the senior generation is 69 years old and that individual has a life expectancy of 17.8 years based on the Service's tables, *see* I.R.S. Pub. 590 app. c, whereas the oldest member of the junior generation is 9 years old. Thus, it is entirely possible that the senior generation (or at least several members of it) may live to overlap with members of a new generation. There is an even greater chance that the senior generation will live to see members of the junior generation add to the number of support units by marrying prior to the death of the senior generation. It is also worth noting that life expectancy tables are based on past experience and improvements in medical science are likely to extend the life expectancies of all presently alive.

conclusive fashion, established that the net return on professionally managed portfolios does not, over the long haul, exceed that on portfolios of randomly selected stocks.[61] This has given rise to the extensive interest in index funds that have become the rage in the last twenty-five years.

The significance of obtaining a slightly higher yield on the dynasty trust in our example is demonstrated by the fact that if the trust were to realize a geometric mean net return of 8.5% then after fifty years, rather than the trust corpus being worth $46,901,572, it would be worth almost twelve million dollars more or $59,086,259.[62] Nonetheless, even with this higher value, commencement of a policy of distributing three percent fifty years after the trust was established would still leave the trust with a rate of return that was doing little more than keeping pace with the expected rise in the national average wage. This would result, in most circumstances, in the value of the trust being eroded as the number of surviving family members increased with the coming of each new generation.[63] Moreover, assume instead we had commenced distribution with a corpus of $59,086,259 at a percentage that would result in distribution of the same dollar amount ($1,407,047) to the family that would result from distributing three percent of the value of a corpus that would be available to us at a return of eight percent ($46,901,572). We would then be distributing only 2.38% of corpus annually. Unfortunately for those who dream of dynastic wealth, this would still leave us with a

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[61] *See* BURTON G. MALKIEL, A RANDOM WALK DOWN WALL STREET (6th ed. 1996). As Malkiel states, "No scientific evidence has yet been assembled to indicate that the investment performance of professionally managed portfolios as a group has been any better than that of randomly selected portfolios." *Id.* at 186.

[62] *See supra* note 54. Of course, as noted previously, if the trust realized a net return of slightly less, the results could be equally profound, but in the opposite direction. A geometric mean return of 7.5% would result in the trust corpus being worth only $37,189,705 after fifty years.

[63] Assuming a mean annual net investment return to the trust of 8.5%, a mean annual national average wage increase of 4.9%, as we have experienced in the past fifty years, and assuming an annual distribution from the trust of 3% of corpus, the trust would be left with a net annual return in excess of the national average wage of about 0.6%. This rate of return would result in the trust corpus doubling in value after about 118 years had run. It is almost a certainty that, in the absence of congenital fertility problems (or the sorts of things that Malthus used to worry about: famine, pestilence, or mass warfare), the number of surviving descendents and spouses would double in many less years. Moreover, as the number of beneficiaries outstripped the growth in trust corpus, limiting distributions to 3% of the annual value of trust corpus would mean that value of the annual distribution per beneficiary would decline, adjusted for inflation and rise in the standard of living.

reinvestment rate of return (6.12%) that is still only slightly above the rate of return what we need to outpace the average national wage of 4.9%. This too would be subject to the same Malthusian pressures but at a slightly slower rate.

The next step to consider would be for families to concentrate on diminishing the number of offspring that each member produces. For example, if a settlor had just one child and that pattern was followed by each succeeding generation, this would halt the pattern of geometric growth of family members. For example, if the settlor in the above Table Two had just one child who married and that couple had one child who in turn married and had just one child, we would have only five (rather than twenty three) members in the three generations looking to the trust for support. A variation on this solution is what likely resulted in primogeniture.[64] In this case we would be able to spread the trust distributions among fewer individuals. Note, however, the ratio of individuals supported by the trust income to the original descendent in the first generation would be at a ratio of 5:1. Given that after fifty years the ratio of corpus to national average wage was close to 4:1, this too would fail to keep pace with rising expectations. If we were to follow the above suggested formula of allocating a 150% share to married couples and a 25% share to minors, this would then result in our only having to dispense enough income to cover 3.25 shares, thus a meaningful surplus would be left in the trust.

This one descendent per generation solution to the problem, which we may call "biological primogeniture," is unlikely to be of widespread popularity for deeply personal reasons. It is difficult to imagine that a large segment of the wealthy population would be willing to so restrict value-laden choices such as the number of

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[64] According to Evelyn Cecil, the author of the classic history on the development of primogeniture, "[a]mong the ancient Britons, an ordinary inheritance was divided between all the sons equally; no privilege was enjoyed by the eldest; and if any dispute arose about the division, it was determined by the Druids." EVELYN CECIL, PRIMOGENITURE: A SHORT HISTORY OF ITS DEVELOPMENT IN VARIOUS COUNTRIES AND ITS PRACTICAL EFFECTS (London, Murray 1895). It was for military defensive reasons that William the Conqueror introduced primogeniture to Briton, first introducing it with respect to military tenures that carried with them titles of nobility and then subsequently broadening those tenures that were subject to primogeniture. The old system of equal division that had previously prevailed had the great risk that as properties were divided the holders would be unable to provide the military might that was needed to support the crown. *Id.* at 26–37. For an interesting and highly readable discussion of the abolition of primogeniture in post revolution America, *see* John V. Orth, *After the Revolution: "Reform" of the Law of Inheritance*, 10 LAW & HIST. REV. 33 (1992).

offspring that they will have for the sake of making a dynasty trust live up to its billing. Given that the official totalitarian Chinese government policy of one child per couple has proven to be a failure, one can hardly expect the voluntary adoption of such a policy among wealthy families in a highly individualistic American society to yield any better results in the name of making a distant settlor's dynasty trust live up to its billing. The remaining solution is for all members of each generation to also put their shoulders to the wheel and do their best to replenish family wealth either through hard work and clever investing or by marrying into families of equal or greater wealth.[65] Each new descendent (and his or her spouse) of the settlor who is well enough off to worry about estate taxes should probably give considerable thought to employing dynasty trusts in his or her estate plan, but such individuals should also scale back their expectations (and those of their families) to reflect realistically achievable outcomes.

V. IT COULD BE WORSE

The example used thus far involves a situation in which the settlor established and funded the trust while his or her issue was young. Had the settlor waited to establish and fund the trust at death and allowed it to accumulate income for fifty years, then due to the fact that there were many more offspring at that time, by the time that fifty years had run, we would likely be making distributions to many more than twenty-three beneficiaries. To get some feel for what one might encounter under such circumstances, we made certain assumptions to project into the future. The assumptions we made are set forth below:

(1) The trust was established four years ago at the actual time of death of the settlor used in our original paradigm.

(2) None of the members of the family will live beyond age eighty-five, thus resulting in the eradication of the entire senior generation within the first thirty years of the trust's existence.

(3) In the middle generation, two members will die in their early sixties.

(4) All members of the family who will marry will do so at age twenty-five. The two members of the middle generation who are not

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[65] It is often said that marrying for money is the hardest way to acquire wealth for any number of reasons. One of our colleagues is fond of quoting the sage advice of the patriarch of an established New England family to his grandchildren: "Never marry for money; be where money is and marry for love."

presently married (M and N) will marry and each will have two offspring.

(5)V and W will not marry and will have no offspring.

(6)Each of the members of the junior generation, other than V and W will marry and each will have two offspring except that one couple will have no offspring and two of the couples will have three offspring. Only one of the members of this new generation of offspring will be old enough to be married (twenty-five) after fifty years.

Applying all of the above, rather conservative, assumptions to our paradigm family results in there being forty-eight living members and spouses fifty years after establishment and funding of this particular dynasty trust. This larger number of beneficiaries will now be looking to the same trust that was inadequate to fund dynastic living for our family when it only numbered twenty-three. Clearly, waiting to fund a so-called dynasty trust until the death of an elderly settlor will further inhibit the ability of the settlor to found a dynasty with such a trust.

VI. A GLIMMER OF HOPE

Readers who had hoped to establish dynastic wealth with the aid of a dynasty trust should not give up all hope. If several dynasty trusts were established for a single family, then the clan would likely be able to live of off the trusts for several generations. For example, if each member of a married unit established a dynasty trust and members of subsequent generations each had the wherewithal to do likewise, then the benefits of such devices could be multiplied. One is likely to encounter some practical difficulties if this is the strategy to which a family pins its hope for attaining dynastic wealth. The primary problem is that where there is sufficient wealth to follow this strategy, the family is likely to be of such stature that its members are unlikely to be satisfied with modest distributions from their trusts. In other words, if a family that can establish two dynasty trusts has double the expectations of another family that can only establish one such trust, then the presence of a second trust is not likely to be of much help. Nonetheless, if appetites for consumption are restrained and several such trusts are established each generation, the members of family in question are likely to be able to live comfortably off distributions from their dynasty trusts for a number of generations. Moreover, by establishing new trusts every generation, one is able to postpone the ravages of Malthus to another generation. Once this is not possible, then the clock starts ticking on the "dynasty."

VII. DYNASTIC TRUST FORMULAE

All of the forgoing suggests that the actual outcome of a dynasty trust is dependent on a variety of factors some of which are controllable at the point of establishing the trust and some of which are not. (Specific numerical examples are set out in the Appendix.) This factor in and of itself creates an element of risk not fully captured in the previous discussion. Nevertheless, a formulaic expression is useful and involves three steps. The most straightforward step is to determine the payout of the trust to would-be beneficiaries at the time the trust will commence making regular payments. It is important to remember, however, that even this step involves estimates with respect to the number of beneficiaries, the earning rate, and trust costs[66] far in the future. The per person income amount can be expressed as:

$PI = [A(Ry-c)]/Hy$, where

> PI = Per beneficiary income;
>
> A = Accumulated value of the trust;
>
> Ry = rate of return on trust in year y;
>
> Hy = the number of beneficiaries in year y;
>
> y = the year of the trust distribution;[67] and
>
> c = estimated trust expense in year y.

The determination of A, the accumulated amount in the trust at the time distributions begin is a straight forward application of the future value formula:

> $A = PV(1 + NRRR)^n$, where
>
> A = Accumulated trust amount;
>
> PV = Initial investment;
>
> $NRRR$ = net real rate of return on trust amount; and
>
> n = number of years wealth is accumulated.

The most difficult step is the determination of $NRRR$. Indeed most of the discussion thus far in this Article is ultimately about the value attributed to $NRRR$. As a formula $NRRR$ can be expressed as:

> $NRRR = i_m - (c + t + e + r_f)$, where
>
> i_m = average nominal rate of return on investment per year for period n;

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[66] The term "trust cost" covers all those trust maintenance and management expenses discussed at *supra* notes 30–36 and accompanying text.

[67] Subsequent pay out years are signified by $y + 1$, $y + 2$, etc. $Y = n$ for the year in which the trust vests.

c = average trust costs per year for period n;

t = average expected tax burden for a period;

e = average expectancy adjustment reflective of rising standard of living per year for period n;

r_f = average rate of inflation pre year for period n.

All components of this calculation are assumed to be constant throughout the retention period. The retention period is the period during which all trust income will be retained without any distributions being made to beneficiaries.

Determining the actual outcome of the dynasty trust means making assumptions about eight factors: (1) the number of beneficiaries (Hy), (2) the initial investment (PV),[68] (3) the rate of return on the corpus at the time of maturity (Ry), the number of years the trust is allowed to accumulate without making distributions (n), the nominal return on the trust during the retention or accumulation period (i_m), trust costs (c), the tax burden on trust income as it accumulates (t), adjustments for expectations (e), and the rate of inflation (r_f). In reality only PV and n are likely to be fully in control of the trustee at the time of establishing the trust.

A final but important observation is in order. *PI* (per beneficiary distributable income) expresses the full share of each beneficiary's income that is available for distribution each year. To avoid diminishing the effective buying power of beneficiary income, it is probably prudent to distribute no more than each beneficiary's share of *NRRR*. Even distributing this reduced amount could be viewed as reckless if one actually wished to insure that the trust would provide for future generations at the same adjusted effective level. To provide for future growth in the pool of beneficiaries as births and marriages outpace deaths, it is probably essential to reduce the amount distributed below the *NRRR* by a few percentage points.[69]

VIII. The Dynasty Trust Has Real Value

The forgoing discussion is not intended to demonstrate that the dynasty trust is valueless but rather to deflate some of the claims made by many of the promoters that a dynasty trust will in fact build

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[68] In most cases this sum will be equal to (but not in excess of) the generation-skipping tax exemption amount. *See supra* note 18 and accompanying text.

[69] If one assumes that the group will double every 24 years or so, it will be necessary to add 3% to the *NRRR*, whereas if it is anticipated that the group will only double every 36 years or so, adding 2% to the *NRRR* will likely be sufficient.

dynastic wealth. Absent a dynasty trust, wealth that passes from one generation to another would be much diminished by the weight of estate taxes. The dynasty trust helps a family preserve wealth forever free of the burden of estate taxes and this can be of great value, but it is unlikely, in most cases, to establish a financial dynasty.

The value of a dynasty trust and its use of the GST tax exemption can be illustrated with the two examples that follow. In all cases we will assume that the trust reaps an annual net return of 8%, that the applicable estate tax rate is 45%, and that no distributions are made from the trust. Assume that taxpayer Allen transfers, at death, $1,000,000 to a trust using the GST exemption. The taxpayer's daughter, Beatrice, is the beneficiary of the trust, and the trustee is empowered to make distributions to her if the trustee, in his sole discretion, deems it necessary. No distributions are made, and Beatrice dies thirty years after her father. Her son Charles is the successor beneficiary. After another twenty years have run, it is necessary to look to the trust to provide for Charles. At that moment, because no estate or GST tax was due at Beatrice's death and because the initial corpus was allowed to compound at the rate of 8%, the trust will contain $46,901,572. This situation should be contrasted with that of taxpayer Martha, who at death transferred $1,000,000 to an identical trust for the benefit of her son Nicholas with his daughter Olive as the successor beneficiary. Martha, however, did not make use of the GST exemption with respect to the trust. As in the first example, the settlor's child-beneficiary died after thirty years had passed and no use was made of trust funds. At the death of Nicholas a generation-skipping transfer tax of 45% was due because of the settlor's failure to make use of the exemption. The consequence of this is that, at Nicholas' death, a generation-skipping transfer tax of $4,528,193 was due on the trust value of $10,062,652, leaving $5,534,459 in the trust. Allowing this sum to compound at the rate of 8% for an additional 20 years prior to accessing trust corpus for the benefit of Olive will result in only $25,795,864 being available to provide for her needs. The difference of more that $20 million dollars in additional funds that is available for Charles is entirely attributable to the use of the GST exemption in the first example. It should be noted that if the trust corpus is not accessed for several more generations, the disparity between the two situations will be even greater in favor of the use of the GST exemption.

Although the dynasty trust is most unlikely to live up to the marketing hype that is created by the name that has been most cleverly chosen for it by those who seek to profit from its creation and

maintenance, it, nonetheless, is a valuable tax saving device in those circumstances where its use is appropriate.[70]

IX. PROFESSIONAL RESPONSIBILITY IMPLICATIONS

It is fairly safe to conclude that the promises of dynasty trusts are unlikely to be realized absent: (1) a family's waiting for a prolonged period of time before accessing the dynasty trust, (2) confining offspring severely for a considerable number of generations, (3) attaining historically unprecedented investment returns for a prolonged period of time, (4) the establishment of numerous dynasty trusts by almost all members of a family for several generations, or (5) some combination of the forgoing. Presumably, any competent estate planner will feel obligated to master these complexities and explore them with his or her client.

These aspirations are different from the affirmative responsibilities of estate planners when clients seek their advice on establishing a dynasty trust. Specifically, does an estate planner whose client is contemplating setting up a dynasty trust have an obligation to warn the client, under Rule 1.1 (obligation of competent representation)[71] and Rule 1.4 (obligation to communicate relevant information to client),[72] that her goals of establishing dynastic wealth are not likely to be realized? In our opinion the Model Rules are unlikely be construed to require an attorney to provide such an explanation.

There are at least three reasons why an attorney who fails to provide an explanation of the limits of a dynasty trust is unlikely to be found professionally deficient. First, because use of the generation-skipping tax exemption to fund a trust provides the client with tax savings and is superior to not employing the exemption on a trust for support of the family, there is no basis for the client to claim that use

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[70] As has been previously noted, were the estate tax to be repealed, or were the estates of members of subsequent generations to slip below the level where estate taxes would be imposed, maintenance of a dynasty trust could impose an unnecessary expense for a family absent other personal factors that justified maintenance of the trust.

[71] MODEL RULES OF PROF'L CONDUCT R. 1.1 (2008) (imposing an obligation to provide competent representation to the client).

[72] *Id.* at R. 1.4 (imposing an obligation on an attorney to communicate relevant information to a client). The obligation to "explain a matter to a client to the extent necessary to permit the client to make informed decisions regarding the representation" is the only obligation imposed by Rule 1.4 that would seem to be relevant.

of the strategy has resulted in a financial loss. Second, given the great number of variables involved, it is impossible for an attorney to make an accurate prediction of how well the settlor's heirs will be served by such a trust many years later when the trust is accessed. Third, given that a court has held that the complications of the RAP are beyond the expected capacity of the average competent lawyer,[73] it is most unlikely that courts would find that failing to master the complicated evaluation of a dynasty trust required to predict the ability of a dynasty trust to provide dynastic wealth constitutes malpractice.

In addition we offer an added possible consideration about the issue of possible malpractice. By the time the dynasty trust proves that it has not provided dynastic wealth, the settlor, who is the only one likely to have standing to sue, and her attorney will likely not be walking the earth and the statute of limitations will likely have expired long ago. This, however, should not be viewed as excusing the attorney from being professionally obligated to provide the client with competent quality legal advice regarding the practical shortcomings of so-called dynasty trust. In closing, although a first rate estate planner is likely to understand the inability of a dynasty trust to deliver on the promise of providing dynastic wealth, the inability of an attorney to understand this fact or his failure to explain it to a client is not likely to result in the attorney being found to have breached his obligation to provide competent advice or to communicate to his client relevant information, although this article may result in changing the parameters within which such judgments are made.

The possibility that attorneys may not be expected to understand the shortcomings of dynasty trusts and explain them to their clients is not an altogether positive outcome. In the normal course of affairs, better quality services can be encouraged by the market, as low quality providers fall to the wayside, or by regulation. In the case of the dynasty trust, the market effect would be to weed out estate planners and other providers who promise too much. Only the most sophisticated clients will be able to assist the market in this regard, and, for the reasons already noted, regulation through the ethical obligations also seems unlikely to be up to the task.

X. CONCLUSION

The so-called dynasty trust is a valuable device for minimizing the weight of transfer taxes within wealthy families. Wealthy families will

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[73] Lucas v. Hamm, 56 Cal.2d 583, 364 P.2d 685 (1961).

find that their need to engage in estate planning extends far beyond the dynasty trust. Normal net rates of return on investments cannot reasonably be counted on to fund a dynasty. The impact of inflation, rising expectations, and, in most cases, a growing pool of living descendents will soon outstrip the ability of such a trust to provide for descendents in the style to which they are likely to have become accustomed. The name chosen to promote such trusts is primarily the product of a clever marketing campaign and is not descriptive of the results that such trusts are likely to produce in the ordinary course of events. The relationship between an estate planner or an attorney and his or her client, requires, however, a more informed examination of likely outcomes.

APPENDIX

This Appendix demonstrates the calculation of income available to trust beneficiaries under a number of assumptions. The most fundamental assumption is the gross rate of return on the corpus (i_m), which is itself a function of investment strategy. What follows represents three investment strategies. It is assumed that the investment portfolio is rebalanced yearly to maintain the same relative mix of investments chosen at the establishment the trust. Within each strategy the time when distribution of income commences and number of beneficiaries are varied and a table presented indicating actual outcomes.

In all cases, a calculation is made for the net real rate of return (*NRRR*). As noted in the text, this is the gross return minus the sum of trust costs (*c*), taxes (*t*), the rate of inflation (*e*), and an allowance for rising expectations (r_f). The latter two are combined and assumed to be 5% in all iterations. The tax rate applied is essentially a weighted average of the tax rates applied to the different types of investments[74] and is applied to the trust income after subtraction of trust costs. The tax rates, therefore, are constant for each investment strategy, although the impact varies depending on the mix of assets in each investment strategy.[75] Non-tax costs are assumed to be constant at .75% of the income. This cost is assumed to apply both before and after vesting. In all examples the initial trust investment is assumed to be $3.5 million.

To avoid erosion of the spending power of the income that is to be annually received by beneficiaries once distribution commences,

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[74] It is assumed that all dividend and capital income is taxed at the rate of 15%. *See* I.R.C. § 1. Interest income is taxed at the rate of 35% (the rate at which most trust retained income other than dividends and long-term capital gains would be taxed. *See supra* notes 38–39. Moreover, it is assumed that in a given year one-third of all net appreciation (after allowing for administrative costs) experienced in a given year is taxed as long-term capital as the trust assets are managed. For example, if in a given year a gross return of 10% is assumed with 20% of the income (or 2% of the 10%) is realized as dividend income, then one third of the remaining 8% of trust return deemed to have been realized as long-term capital gains is taxed at 15%. These factors account for different tax costs in each of the three different investment scenarios in the appendix.

[75] For example, the presence of bonds in one investment strategy will call into play the 35% tax on ordinary income that is effectively applied to retained trust income. Whereas, if a trust holds only stocks, then the 15% tax on dividends and long-term capital gains will result in a lower effective tax rate for that strategy.

only current *NRRR* is distributed to beneficiaries in each of the investment strategies illustrated below. If this were not done and if all income were distributed, due to factors such as inflation, rising expectations, taxes, and other trust costs, the purchasing power of future distributions of trust income would be gradually reduced, with significant real negative impact soon being manifest. Allowing even this modest distribution of a given trust's worth will have an adverse impact on the ability of the trust to keep up with growth in the number of new beneficiaries that are added to the pool of the settlor's surviving descendents, their spouses and offspring as marriages, births, and deaths impact on the pool of those who look to the trust for support. In point of fact, unless distributions occur at an even lower rate than the *NRRR*, in most circumstances, future generations are likely to effectively experience dramatically lower benefits.

Lastly, because the *NRRR* makes allowance for the impact of inflation and rising expectations, the data in the investment strategies below can be viewed as being expressed in terms of constant dollars.[76]

A. *Investment Strategy 1*

The first investment strategy assumes equal investments in large company stocks, small company stocks and long-term corporate bonds. The weighted average return is 9.25%.[77] This produced a weighted average tax rate of 1.03%.[78] The net real rate of return is 2.47% which is calculated as follows:

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[76] To produce constant dollars, we adjust not only for inflation, but also for rising expectations.

[77] This is the average of the returns on these three types of investments as indicated on Table 1, *supra* note 28 and accompanying text. The rate of return assigned to small cap companies is probably excessive based on experiences with the Vanguard Small Cap Index fund since its founding in 1960. *See supra* note 28. Consequently, the gross rate of return assigned to this investment strategy is probably excessive. The same point is made with respect to Investment Strategy 2. *See infra* note 81 and accompanying text.

[78] *See supra* note 74. After deducting allowable costs from trust income the net amount was taxed on the assumption that the small cap stock paid dividends at the rate of 1.75% of their value based on the fact that is the return on the Vanguard Small Cap Index Mutual Fund. Similarly, the dividend rate of return on the large cap stock was set at 2% based on Vanguard data for its S&P 500 Index Fund. The interest rate for the bond component of the portfolio was based on the data found. *Supra* note 28 and accompanying text. The balance of the yield on the stock portion of the portfolio was determined to be appreciation after subtracting the dividend yield from the data reported by Ibbotson Associates. *Supra* note 28 and accompanying text.

NRRR = nominal income during trust accumulation (i_m) – (cost of maintenance and management (c) + tax (t)[79] + expectancy (e) + inflation (r_f)).

Or

$2.47 = 9.25 - (.75 + 1.03 + 5.0)$.

Using the basic future value formula, $A = PV(1 + NRRR)^n$, the accumulated amount at the end of fifty years is \$11,855,100.[80] Assuming a 9.25% return on the trust and a *NRRR* of 2.47% for this investment strategy, the amount distributed to each of twenty-five beneficiaries is \$11,713 per year. More specifically, each cell illustrates the distribution in real income, and thus the impact for future generations should be the same as it would be for current recipients as long as the number of beneficiaries remains constant. If the number were to increase in future years, then the distribution amount would decline. Similarly, if, in future years, the number of living beneficiaries decreases, then the distribution amount would increase in future years.

These results plus those for the sixty and seventy year retention periods before distributions commence and varying numbers of beneficiaries are set out in Table A1.

Table A1: Distribution Per Beneficiary By Retention Period and Number of Beneficiaries—Strategy 1

		BENEFICIARIES				CORPUS TOTAL
RETENTION		**25**	**30**	**35**	**50**	
PERIOD	**50**	11,700	9,800	8,400	5,900	**11,855,100**
	60	15,000	12,500	10,700	7,500	**15,131,200**
	70	19,100	15,900	13,600	9,500	**19,312,500**

B. Investment Strategy 2

Under investment strategy 2, one-half of the corpus is invested in large company stocks and one-half in small company stocks. The

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[79] It is assumed that one-third of the appreciation occurring in each year would be taxed as long term capital gains. The reader can vary this and any assumptions. For example, in the case of large cap stocks in Strategy 3, it may be reasonable to assume little, if any, capital gain income due to the buy and hold nature of index funds that may be used as the investment vehicle for this strategy.

[80] All amounts are rounded to the nearest \$100.

weighted gross rate of return is 11.5%.[81] This produces a weighted tax rate of .65%.[82] Holding constant for the maintenance and management costs as well and inflation and expectations, produces a *NRRR* of 5.1%. Under this set of assumptions and with a retention period of 50 years the corpus would grow to $42,092,500 in constant dollars. Assuming an 11.5% return (a *NRRR* of 5.1%), twenty-five beneficiaries and distribution per beneficiary of each beneficiary's share of the income generated by the *NRRR* at the end of the retention period, the amount per person distributable would be $85,800. These results plus those for the sixty and seventy year retention periods and varying numbers of beneficiaries are set out in Table A2.

Table A2: Distribution Per Beneficiary By Retention Period and Number of Beneficiaries—Strategy 2

		BENEFICIARIES				CORPUS TOTAL
RETENTION		**25**	**30**	**35**	**50**	
PERIOD	**50**	85,800	71,500	61,300	42,900	**42,092,400**
	60	141,100	171,700	100,900	70,600	**69,219,800**
	70	232,200	193,500	165,900	116,100	**113,830,200**

C. Investment Strategy 3

This strategy assumes that the entire corpus is invested in large company stocks. The starting point or gross return is estimated to be

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[81] It is unlikely that the rate of return on small cap stocks reported by Ibbotson since 1925 (12.6%) will be realized. *See supra* note 28. A more likely rate of return for a combined large cap/small cap portfolio would be in the range of 9.47% based on the experience with the Vanguard Small Cap Index fund since 1960. Vanguard Small-Cap Index Fund Admiral Shares, https://personal.vanguard.com/us/funds/snapshot?FundId=0548&FundIntExt=INT#hist::tab=1 (last visited Feb. 12, 2009). Nonetheless, to maintain consistency with our data source, we have used the higher rate reported by Ibbotson for small cap stock investments and have used a gross rate of return of 11.5% for such a stock portfolio. Were we to use a rate of return for small cap stock suggested by the Vanguard data then the results under Investment Strategy 2 would be very close to the results under Investment Strategy 3 in which a gross rate of return of 10.4% was used.

[82] Under this strategy, no income is taxed at the 35% rate. Dividends and long-term capital gains were assumed to be taxed at 15%, which is consistent with current law but may not hold throughout the retention period. The same assumptions about taxes that were made in the previous investment strategy were made with respect to this investment strategy. *See supra* note 74.

10.4%.[83] The estimated tax rate was .62%.[84] After subtracting this and the other adjustments to gross return as describe above the NRRR was 4.03%. At the end of the fifty year retention period the corpus would be $25,234,700 in constant dollars. Assuming that the amount distributed to each beneficiary would be the beneficiaries share of the corpus times the *NRRR*, the amount distributed to each of the twenty-five beneficiaries at the end of the retention period would be $40,700. These results plus those for the sixty and seventy year retention periods and varying numbers of beneficiaries are set out in Table A3.

Table A3: Distribution Per Beneficiary By Retention Period and Number of Beneficiaries—Strategy 3

	BENEFICIARIES				CORPUS TOTAL
RETENTION		**25**	**30**	**35**	**50**	
PERIOD	**50**	40,700	33,900	29,000	20,300	**25,234,700**
	60	60,400	50,300	43,100	30,200	**37,461,400**
	70	89,600	74,700	64,000	44,800	**55,612,200**

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[83] *See supra* note 28 and accompanying text.

[84] The same assumptions that were made with respect to the impact of taxes in the two prior investment strategies were made with respect to this investment strategy. *See supra* notes 74, 75, 78, and 79. The same assumptions that were made with respect to dividend yield on large company stock and capital gains realized that was made in the first two investment strategies were also made with respect to this investment strategy. *See supra* note 78 and accompanying text.