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Rolling Short-term GRATs Are (Almost) Always Best

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By David L. Weinreb & Gregory D. Singer





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s the Internal Revenue Code's Section 7520 rate dropped this year to near-record lows (down to 3.2 percent in May 2008), some estate planners began recommending that clients create long-term grantor retained annuity trusts (GRATs) to lock in a low hurdle rate.¹ This may seem commonsensical, like locking in a low mortgage rate on a home loan. But it's probably a bad idea.

If one's goal is to transfer relatively volatile liquid assets, such as publicly traded stocks, research shows that a series of rolling short-term GRATs is a far more effective strategy than a long-term GRAT, regardless of the 7520 rate at the strategy's inception.² (For illiquid, hard-to-value assets, though, a longer-term GRAT may be better. See "A Notable Exception," last page.)

We came to this conclusion after conducting some research in 2005—another period of quite low 7520 rates. But a renewed drop in the 7520 rate is tempting many people. Advisors and their clients have been knocking on our doors, asking whether they should lock in a low hurdle by creating long-term GRATs.

So we've re-opened our investigation of long-term



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is the director of research in the Wealth Management Group at Bernstein Global Wealth Management in New York versus rolling short-term GRAT strategies to nail down once and for all: Which is better when?

This time, we significantly expanded our research going deeper and broader in the analysis, using sophisticated quantitative modeling and capital markets forecasting and analyzing all sorts of market conditions. Based on feedback we received after our original study, we also considered various GRAT strategies to seek the fairest comparison of short-term versus longterm structures. And for the first time, we looked back at real economic environments by comparing rolling 10-year periods beginning every month since 1941. We also examined stock market performance and its relationship to GRAT success.

What did we find?

• A series of rolling short-term GRATs funded with publicly-traded stocks is more likely to succeed at transferring wealth—and will most likely transfer more wealth—than an identically funded long-term GRAT, regardless of the 7520 rate at the strategy's inception.

• A rolling short-term GRAT strategy funded with publicly-traded stocks will most likely outperform a longterm GRAT, regardless of whether the stock market has suffered a downturn before the strategy's inception.

• The stock market's performance during the term of any GRAT strategy funded with publicly-traded stocks will impact the amount of wealth transferred, but rolling

GRATs provide a far better chance of success than a long-term GRAT—especially during an extended period of market weakness.

In other words, rolling short-term GRATs are almost always the better choice.

Volatility Can Pay

A rolling short-term GRAT strategy is highly likely to outperform a single long-term GRAT for two reasons:

- (1) It keeps more of the funds committed to the strategy. In a single long-term GRAT, the funds decline each year, as the annuity payments give GRAT assets back to the grantor. In contrast, a rolling GRAT strategy keeps all the funds working (less the amounts passing to beneficiaries from the successful GRATs).
- (2) The shorter, two-year time horizon of the GRATs in the rolling GRAT strategy minimizes the risk that good investment performance in one year will be offset by poor investment performance in another year. Even if the compound return during a 10-year period is poor, there may be good two-year periods along the way that result in wealth transfer.

As an example, consider the decade that just ended: 1998 through 2007. This period saw the rise of the technology stock bubble, the depths of the ensuing bear market and a strong recovery. From start to finish of this roller coaster ride, stocks turned in a 5.9 percent annualized return. Yet the 7520 rate at the start of this period was 7.2 percent.

Suppose that a grantor had created a 10-year, zeroed-out GRAT with \$5 million on Jan. 1, 1998. It would have failed to transfer any wealth to the remainder beneficiaries. But a commitment of \$5 million to a series of rolling two-year GRATs would have seen six GRATs successfully pass wealth over the 10-year period, transferring \$3.4 million.

Clearly, the rolling GRAT strategy capitalizes on the inevitable upside volatility of the

Capitalizing on Volatility

For the decade ending in 2007, a 10-year term GRAT funded with \$5 million would have failed to transfer any wealth. But a series of rolling two-year GRATs would have transferred \$3.4 million

Even though seven out of 10 years in this decade resulted in positive returns for the S&P 500—some with very high returns—the 10-year term GRAT suffered disproportionately from three years of very poor returns clustered in the first half its term. Rolling two-year GRATs, in contrast, took advantage of positive two-year cycles to transfer wealth.



Total 2-Year Rolling GRATs Wealth Transferred: \$3.4 Million

Years	7520 Rate	S&P Annual Return	S&P Compound 2-yr Forward Return	Wealth Transferred
1998	7.2%	28.6%	24.8%	\$0
1999	5.6	21.0	4.9	1,650,000
2000	7.4	(9.1)	(10.5)	180,000
2001	6.8	(11.9)	(17.1)	0
2002	5.4	(22.1)	0.1	0
2003	4.2	28.7	19.4	0
2004	4.2	10.9	7.8	878,000
2005	4.6	4.9	10.2	191,000
2006	5.4	15.8	10.5	177,000
2007	N/A	5.5	N/A	323,000
Total = \$3,399,000				

Term GRATs were structured with 20 percent increasing annuities, while rolling GRATs were structured with level annuities.

Success Either Way

Rolling two-year GRATs are highly likely to succeed no matter if they're begun when 7520 rates are high or low

Rolling two-year GRATs invested in publicly traded stocks and launched in the lowest and highest quartiles of 7520 rates are equally likely to transfer wealth.



All strategies funded with \$10 million. All assets are invested in a globally diversified portfolio composed of 35 percent U.S. value stocks, 35 percent U.S. growth stocks, 25 percent developed country international stocks, and 5 percent emerging market stocks. Wealth to beneficiaries is reinvested with the same asset allocation, and held in a grantor trust.

-AllianceBernstein

And the Winner Is . . .

Even when longer-term GRATs begin in periods of low interest rates, a rolling series of two-year GRATs succeeds more often and transfers more wealth

We modeled 10,000 future market environments and isolated those with the lowest quartile of 7520 rates to show their effect on three GRAT strategies: a rolling series of two-year GRATs; a simple 10-year term GRAT; and a sequence of GRATs beginning with a 10-year term, followed by a nine-year term, and so on, ending with a final two-year term.



All strategies funded with \$10 million. All assets are invested in a globally diversified portfolio composed of 35 percent U.S. value stocks, 35 percent U.S. growth stocks, 25 percent developed country international stocks, and 5 percent emerging market stocks. Wealth to beneficiaries is reinvested with the same asset allocation, and held in a grantor trust.

*The 10-year term GRAT in each case uses 20 percent increasing payouts to keep money at work, as do the nine-year through three-year term GRATs in the decreasing term GRAT strategy. Rolling GRATs have level annuities.

stock market. (See "Capitalizing on Volatility," previous page.) Incidentally, a 7520 rate of 7.2 percent is not unusually high; the average 7520 rate since the rate's inception in 1989 is 6.8 percent (as of June 2008).

Applying our wealth forecasting model to simulate 10,000 market scenarios across a wide range of asset classes, we find that a 10-year series of rolling two-year GRATs invested in a portfolio of globally diversified stocks has a greater than 98 percent chance of transferring wealth to the remainder beneficiaries, regardless of 7520 rates at the strategy's inception.³ (See "Success Either Way," this page.) The strategy passes substantial wealth in both the lowest 7520 rate environments and the highest.

Does tweaking the long-term GRAT structure rescue it? If we know that a rolling GRAT strategy is likely to outperform a single longterm GRAT because it keeps more of the funds committed to the strategy, how can we adjust the long-term GRAT to keep more of its funds in play? To isolate the benefit of making the GRATs short-term, we modeled a "decreasing term" strategy, which starts with a long-term GRAT, but keeps the funds working in sequential GRATs of decreasing length. Specifically, we analyzed the probability of success of a strategy in which a grantor establishes a 10-year GRAT, uses its first annuity to create a nine-year GRAT, uses its next annuity (plus the nine-year GRAT's first annuity) to create an eight-year GRAT, and so on, keeping all of the funds in GRATs and ending with a two-year GRAT.

Again, we used our wealth forecasting model to simulate 10,000 market scenarios and assumed that both the decreasing term and rolling GRATs were initially funded with \$10 million and invested 100 percent in globally diversified stocks. From these scenarios, we considered those in which the strategy began in the lowest quartile of 7520 rates.

We found that the "decreasing term GRAT" strategy has a good chance of succeeding: a 96 percent probability of success compared to the greater than 98 percent chance for the rolling

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short-term strategy. But the decreasing term strategy transfers considerably less wealth: a median transfer of \$5.3 million, compared to \$7.4 million from the rolling short-term strategy. (See "And the Winner Is..." previous page.) Thus, the benefit of structuring GRATs with a short term is substantial.

Historical Analysis

The simulated results are compelling. But how would these strategies have fared in real-life conditions? We compared the results of the two strategies—rolling two-year versus simple 10-year term—and assumed they'd been launched every month from May 1941 through April 1998, for 684 trials in all. We assumed each GRAT began with \$10 million invested in the S&P 500. And, because the 7520 rate has existed only since 1989, we created a proxy for earlier periods based on the Internal Revenue Service's

methodology. This 57-year span covers a wide range of interest rates and stock market returns, with the 7520 rate averaging 6.7 percent, but dipping as low as 1.2 percent.

The results were striking: The rolling two-year GRAT strategy beat the 10-year term GRAT in every period, and succeeded 100 percent of the time at transferring wealth to the next generation. By contrast, the 10-year GRAT succeeded only 80 percent of the time. (See "History Lessons," this page.)

Not only was the rate of success higher, but the amount of wealth transferred was also much higher. Even when the 10-year term GRAT succeeded, the rolling GRAT strategy transferred nearly twice as much wealth in the median case: an inflationadjusted transfer of \$11.0 million compared to only \$6.1 million.

To get a better sense of how quickly a rolling GRAT strategy is likely to work, we also compared it to term GRATs of less than 10 years. The pattern held: Running the same historical analysis using four-year term GRATs versus four years of rolling two-year GRATs, the rolling strategy succeeded 98 percent of the time after only four years, compared with 79 percent for the four-year term GRATs. And out of the 684 trials, the rolling GRATs transferred as much or more wealth than the four-year term GRAT more than 97 percent of the time.

An All-Market Strategy

What about the stock market environment when the GRAT strategy is launched? One might argue that if the stocks in a GRAT are poised for an upsurge, a long-term GRAT should outperform rolling short-term GRATs. But our historical analysis shows little, if any, connection between the stock market's performance before a GRAT's inception and its success. Rolling GRATs would have outperformed term GRATs by wide margins, no matter what the stock market had done in the year

History Lessons

A rolling two-year GRAT strategy would have produced results that were strikingly superior to those produced by a longer term GRAT strategy

An analysis of 684 10-year periods (beginning monthly) from 1941 to 1998 (using a proxy for the 7520 rate before 1989 based on IRS methodology) shows that rolling short-term GRATs would have succeeded more often, and transferred significantly more wealth, than single longer-term GRATs.



All strategies were assumed to have been funded with \$10 million and invested in a portfolio representative of the S&P 500. Wealth to beneficiaries is reinvested and adjusted for inflation.

*Term GRATs were structured with 20 percent increasing annuities, while rolling GRATs were structured with level annuities.

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before the strategies' inceptions. This result reflects the fact that stocks have historically tended to rise over any 10-year period, with market downturns being relatively short in duration. (See "Why the Market Doesn't Matter," this page.)

Finally, we considered the performance of stocks during the GRAT strategies' term. It's clear that a strong stock market will aid the performance of any GRAT

Why the Market Doesn't Matter

From 1941 to 1998, the stock market's 12-month performance before a GRAT's inception would have had little, if any, effect on the GRAT's performance

The rolling two-year GRAT strategy would have transferred significantly more wealth to remainder beneficiaries, compared to 10-year term GRATs, in any stock market environment at inception.



All strategies funded with \$10 million and invested in a portfolio representative of the S&P 500. Wealth to beneficiaries is reinvested and adjusted for inflation.

*Term GRATs assume 20 percent increasing annuities, while rolling GRATs assume constant annuities.

The worst "trailing 12 month" period for the S&P 500 occurred for strategies beginning in October 1974, when the S&P had dropped 38.9 percent over the preceding 12 months: A 10-year term GRAT begun at that time would have transferred \$6.5 million (inflation-adjusted). A 10-year rolling short-term GRAT strategy begun at that time would have transferred \$9.2 million (inflation-adjusted), assuming reinvestment of transfers.

The best "trailing 12 month" period for the S&P 500 occurred for strategies beginning in May 1943, when the S&P had gained 61.2 percent over the preceding 12 months: A 10-year term GRAT begun at that time would have transferred \$12.3 million (inflation-adjusted). A 10-year rolling short-term GRAT strategy begun at that time would have transferred \$17.2 million (inflation-adjusted), assuming reinvestment of transfers.

funded with publicly-traded stocks. But we wanted to analyze the effect of poor stock market performance. Specifically, what if one believes, as some prognosticators do, that the outlook for the stock market over the next decade is lackluster, or worse?

Extending our historical analysis, we looked at all of the 10-year periods (beginning monthly) since 1941 in which the S&P 500 annualized return was less than

5.5 percent—69 periods in all, or about 10 percent of the trials.

The results were eye-opening: The rolling short-term GRAT strategy would have successfully transferred wealth in 100 percent of these periods, transferring a median amount of \$1.8 million. Tenyear term GRATs, in contrast, would have succeeded only 13 percent of the time.

Clearly, if one expects poor stock market performance in the years to come, a rolling short-term GRAT strategy is preferable to a long-term GRAT.

A Timeless Strategy

Based on our research, there should no longer be any doubt that a series of rolling short-term GRATs is a better way to transfer publicly-traded stocks than a long-term GRAT. Moreover, a rolling short-term GRAT strategy provides the added benefit of flexibility—if for some reason a grantor wishes to abandon the strategy, he can simply stop the rolling process.

One of the well-worn maxims of investment management is that it doesn't pay to time the market. We might add that trying to time a GRAT strategy (or estate planning in general) is equally misguided. Smart estate planning is timeless: One can shield wealth from gift and estate taxes in any interest rate or market environment. And clearly, a series of rolling shortterm GRATs funded with publicly-traded stocks is a relatively simple and effective wealth transfer strategy at any time. —Bernstein Global Wealth Management, a unit of AllianceBernstein L.P., does not offer tax, legal or accounting advice. In considering this material, you should discuss your individual circumstances with professionals in those areas before making any decisions.

Endnotes

- A grantor retained annuity trust (GRAT) refers to a trust in which the grantor retains a "qualified annuity interest" within the meaning of Treasury Regulations Section 25.2702-3. For purposes of this article, all GRATs are assumed to be "zeroed out," which means that the value of the annuity payments, as determined under Internal Revenue Code Section 7520, equals the value of the property that the grantor transfers to the GRAT.
- Julie K. Kwon and Daniel J. Loewy, "GRATs: On a Roll," *Trusts & Estates*, June 2005, pp. 33-45. Short-term GRATs are defined as having a twoyear term.
- 3. Our analyses use a Monte Carlo model that simulates 10,000 plausible future paths of returns for each asset class, inflation and the 7520 rate. It also produces a probability distribution of outcomes. However, the model does not randomly draw from a set of historical returns to produce estimates for the future. Instead, our forecasts (1) are based on the building blocks of asset returns, such as inflation, yields, yield spreads, stock earnings and price multiples; (2) incorporate the linkages that exist among the returns of various asset classes; (3) take into account current market conditions at the beginning of an analysis; and (4) factor in a reasonable degree of randomness and unpredictability.

A Notable Exception

Longer-term GRATs can work well for transferring illiquid assets

While liquid assets usually do better in rolling short-term grantor retained annuity trusts (GRATs), long-term GRATs often are better suited for illiquid assets. The reason: valuation. Illiquid assets are not "marked to market" like publicly traded stocks. Committing illiquid assets to a rolling short-term GRAT strategy would require frequent valuations, which could be cumbersome, costly or both.

Another challenge with illiquid assets is that every year the GRAT must distribute property back to the grantor. This requirement creates several options for the trustee: Either fractional interests in the illiquid asset must be distributed (requiring frequent valuations of the asset); or the illiquid asset must be sold (which may be infeasible or undesirable); or the GRAT must be partly funded with liquid assets to make the annuity payments. Generally speaking, any of these options tend to favor a longer term strategy—and the lower the 7520 rate, the better.

Nevertheless, GRATs can work well with illiquid assets. But there should be some modifications. For example, pre-initial public offering (IPO) stock or stock in a private company that is expected to be sold soon for its enterprise value might be contributed to a GRAT with a term that ends at a date beyond the expected sale date. If the sale were expected to take place within a year or two at the most, the GRAT's term might be three to five years. This extra time would provide maximum flexibility for the offering or sale transaction. Also, other, more liquid assets might be contributed to the GRAT and used to fund early GRAT annuity payments without having to use shares of the stock.

Another strategy is to extend the term of the GRAT and take advantage of the ability to step up the annuity payment by 20 percent each year, allowing an increasing cash flow to fund annuity payments more effectively. For example, assuming a 7520 rate of 5 percent, a zeroed-out, 10-year GRAT structured in this fashion and funded with a \$3.5 million illiquid asset (after a 30 percent discount) would require an initial annuity payment of only about \$187,400, compared with an initial \$789,800 annuity payment if the GRAT term were five years and no discount were applied. Reducing the amount of the early annuity payments makes it more likely that the annuities can be satisfied with cash flows from the illiquid asset. This way, the GRAT can take advantage of the valuation discount and pass on that value as well as any appreciation to the remainder beneficiaries.

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