

THE PROCESS OF MANAGING RETIREMENT INCOME

ENDOWMENT SPENDING POLICY



Retirees and their advisors should thoughtfully establish a spending plan to balance the desire to maintain a consistent lifestyle with preserving assets for a retirement that could last 30 to 40 years. To achieve this balance, a spending policy should be developed to determine what percentage of the retirement savings will be spent initially and how this amount will change over time to reflect the effects of inflation and the performance of the underlying investment portfolio.

The road of retirement should be paved with more than good intentions. Soon-to-be retirees need to develop and follow a retirement income plan that balances current lifestyle and long-term sustainability of the retirement portfolio. The *Road of Retirement* series provides some best practices for accomplishing this balance.

Retirees will choose a spending amount based upon a percentage of the retirement portfolio's market value at the time of retirement. A spending amount is defined as the amount of money withdrawn from the retirement savings to cover living expenses. All too often this amount is increased annually by a cost of living adjustment as measured by the Consumer Price Index (CPI). This spending policy is referred to as a "lifestyle" policy since it is intended to provide for a consistent standard of living indexed to inflation. The lifestyle spending policy, although attractive due to its simplicity, is flawed in two important areas.

a retirement portfolio at risk of premature depletion.

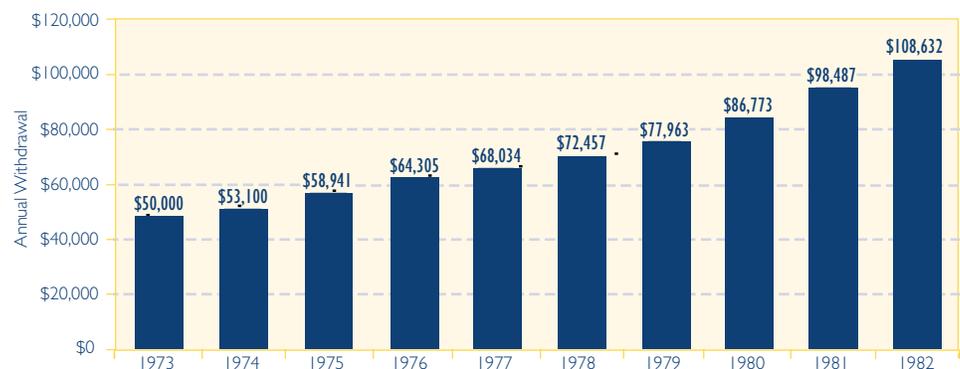
A good illustration of this can be seen in the hypothetical chart below (**figure one**), which shows annual spending amounts for a retiree who began retirement on January 1, 1973 with a \$1 million retirement portfolio and using a 5% lifestyle policy. Academics have shown that this was one of the most difficult retirement periods in the last eighty years, due to an extended period of high inflation coupled with a significant bear market. Inflation during this ten-year period averaged 8.75% yearly, which resulted in the spending amount doubling from \$50,000 to \$108,632.

1. This policy does not tie the spending level to the performance of the underlying investment portfolio. As a result, the lifestyle policy never requires the retiree to slow or reduce the spending level during an extended bear market.

For this retiree, high inflation was only half the story. The stock market was experiencing a severe bear market, with the S&P 500 Index losing approximately 37% during the first two years following the retirement date. The combination of the lifestyle policy in a high inflation environment and the losses from the 1973–74 bear market resulted in

2. In periods of high inflation, spending amounts may increase too rapidly, placing

FIGURE 1. HYPOTHETICAL JANUARY 1, 1973 RETIREE'S SPENDING USING A 5% LIFESTYLE POLICY



Inflation based upon CPI-U.

Source: Bureau of Labor Statistics

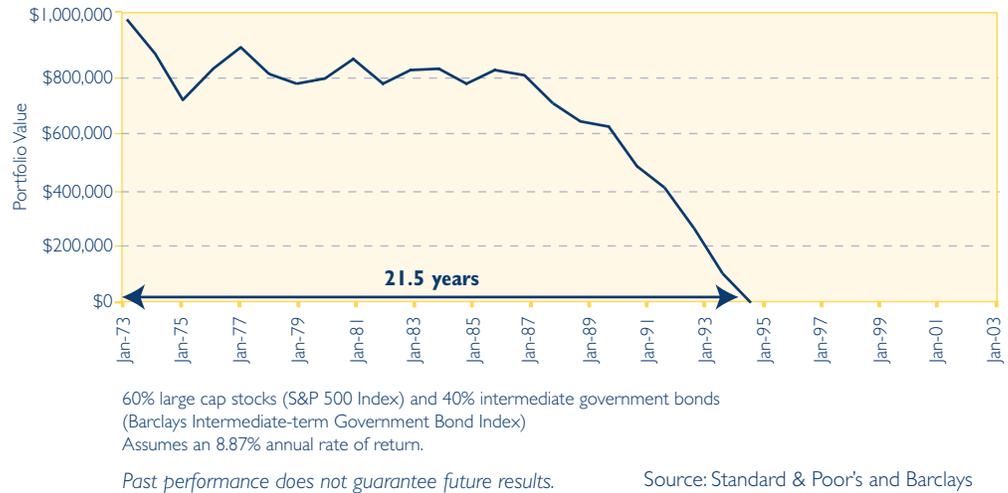


the investment portfolio being depleted in just 21.5 years, as illustrated in **figure two**.

While the lifestyle policy is flawed and can lead to a retirement portfolio being prematurely depleted, it continues to be widely used due to its simplicity. Another alternative is a spending policy used by some college and university endowments, which we will refer to as the "endowment" spending policy. This policy is a blended approach, meaning it uses a percentage of the prior year's spending amount together with a percentage based upon the current portfolio value. When blended together, these two values determine the next year's spending amount. Having a percentage of the spending tied to the performance of the portfolio will increase or decrease the spending amount in tandem with the value of the retirement assets. A decrease in the spending amount during an extended bear market is a vital concept for improving the sustainability of a retirement portfolio. While the endowment policy is designed to lower the spending amount during a bear market, it does so on a gradual basis, thereby allowing the retiree time to adjust spending and stay on plan. Like the university endowments that use a similar policy, it can provide a balance between funding current operations while also preserving assets to cover future operations.

To begin using an endowment policy, retirees and their advisors must decide on two factors: what spending rate is appropriate and what smoothing rule should be applied, described as follows.

FIGURE 2. HYPOTHETICAL JANUARY 1, 1973 RETIREE'S ACCOUNT BALANCE USING A 5% LIFESTYLE POLICY



Spending Rate is the percentage of the portfolio value the retiree will use to determine their annual spending. There has been much written by academics on the subject of sustainable spending rates with a consensus of somewhere between 4% and 5% being the prudent balance between providing a reasonable retirement lifestyle and allowing the portfolio the opportunity to grow. For our hypothetical, we will choose 5% as our spending rate which equates to \$50,000 per \$1 million of savings in the first year of retirement.

Smoothing Rule determines how quickly to increase or reduce the retiree's annual spending amounts based upon the portfolio's investment performance. Selecting a 90/10 smoothing rule assumes that 90% of the spending amount will be based on the prior year's spending and 10% will be based upon the portfolio's current valuation.

Let's use a hypothetical four-year time frame, with high annual inflation to illustrate how the endowment policy calculates spending. In **figure three**, we assume a \$1 million retirement portfolio with a 5% spending rate and a 90/10 smoothing rule. The hypothetical shows the portfolio value on January 1st of each year and the annual spending calculation.

Note how the spending amount actually increases during the two years of a bear market, but does not keep pace with inflation since the underlying portfolio value does not warrant it. This willingness to reduce the spending amount at times when the investment portfolio is not performing well is key to having

FIGURE 3. ENDOWMENT CALCULATIONS ON A HYPOTHETICAL PORTFOLIO

Account Status	Year 1	Year 2	Year 3	Year 4
Hypothetical Portfolio Value (PV)	\$1,000,000	\$800,000	\$700,000	\$800,000
Spending Amount	\$50,000	\$51,940	\$55,773	\$55,822
Current Spending Rate (Amount/PV)	5.0%	6.5%	8.0%	7.0%
Spending Calculations	Year 1	Year 2	Year 3	Year 4
90% of Prior Yr Spending Amount		\$45,000	\$46,746	\$50,196
10% of PV Times 5% Spending Rate		\$4,000	\$3,500	\$4,000
Subtotal before Cost of Living Adjustment (COLA)		\$49,000	\$50,246	\$54,196
Prior Year CPI Increase		6%	11%	3%
Annual COLA		\$2,940	\$5,527	\$1,626
Spending Amount		\$51,940	\$55,773	\$55,822
Increase / (Decrease) from Prior Year		3.9%	7.4%	0.1%

Not indicative of a particular investment. For illustration purposes only.
Source: Thornburg Investment Management

a sustainable retirement portfolio. Using an endowment policy assists in maintaining a reasonable current spending amount in both bear and bull markets.

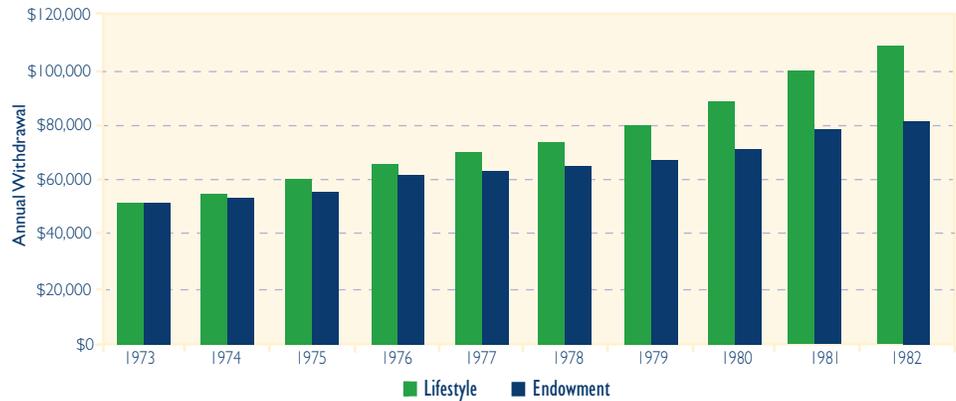
Let's return to the January 1, 1973 retiree and see the difference using an endowment policy can make to the sustainability of their retirement portfolio. Illustrated in **figure four** is a hypothetical comparison of the annual spending amounts for the first ten years of retirement using the endowment and lifestyle policies.

Again, note how the endowment policy reins in the spending amounts, as compared to the lifestyle policy, during this high inflationary bear market. In fact, over the 10-year period, the spending amount was lowered by almost \$102,000 in the aggregate (10% of the initial portfolio value), allowing this amount to remain invested in the portfolio for future periods. The reduced spending amount allowed the portfolio time and more assets with which it could take advantage of market conditions as they improved.

The net effect of the change to an endowment policy for the January 1, 1973 retiree is quite dramatic. In the hypothetical in **figure five**, which compares the impact to the retirement portfolio value using the lifestyle versus endowment policies, the lifestyle policy results in an exhausted portfolio in 21.5 years, while the endowment policy portfolio had actually grown to \$1.8 million during this same time frame.

When using the endowment policy, retirees and their advisors can expect that spending amounts may not keep pace with

FIGURE 4. HYPOTHETICAL JANUARY 1, 1973 RETIREE'S SPENDING AMOUNTS USING 5% LIFESTYLE VS ENDOWMENT POLICIES



60% large cap stocks (S&P 500 Index) and 40% intermediate-term government bonds (Barclays Intermediate-term Government Bond Index)

Past performance does not guarantee future results.

Sources: Barclays and Standard and Poor's.

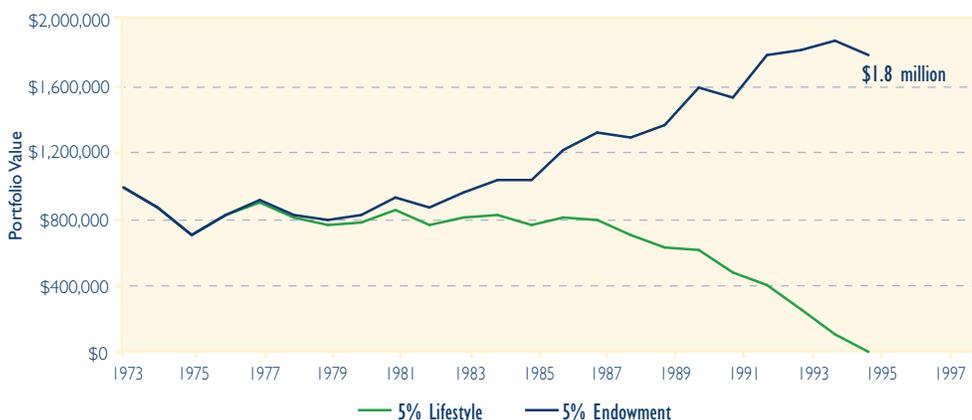
the cost of living, unless the performance of the underlying investment portfolio grows sufficiently to support it. This slow "tightening of the belt" during bear markets is one of the keys to a sustainable retirement portfolio.

Following this strategy does not assure or guarantee sustainability of a retirement portfolio or better performance nor do they protect against investment losses.

Investments carry risks, including possible loss of principal. Investments in equity securities are subject to additional risks, such as greater market fluctuations. Bonds are subject to certain risks, including interest-rate risk, credit risk, and inflation risk. The principal value of bonds will fluctuate relative to changes in interest rates, decreasing when interest rates rise. Investments in stocks and bonds are not FDIC insured, nor are they deposits of or guaranteed by a bank or any other entity.

The views expressed in this article are subject to change.

FIGURE 5. HYPOTHETICAL JANUARY 1, 1973 RETIREE'S ACCOUNT BALANCE USING A 5% LIFESTYLE VS ENDOWMENT POLICIES



60% large cap stocks (S&P 500 Index) and 40% intermediate-term government bonds (Barclays Intermediate-term Government Bond Index).

Assumes an 8.87% average annual rate of return.

Past performance does not guarantee future results.

Source: Standard & Poor's and Barclays

The Consumer Price Index (CPI) measures prices of a fixed basket of goods bought by a typical consumer, including food, transportation, shelter, utilities, clothing, medical care, entertainment and other items. The CPI, published by the Bureau of Labor Statistics in the Department of Labor, is based at 100 in 1982 and is released monthly. It is widely used as a cost-of-living benchmark to adjust Social Security payments and other payment schedules, union contracts and tax brackets. Also known as the cost-of-living index.

The CPI-U is a subset of CPI that measures the effects of inflation on all urban consumers.

The S&P 500 Index is an unmanaged broad measure of the U.S. stock market.

The Barclays Intermediate-Term Gov't Bond Index covers all publicly issued, non-convertible, fixed rate, dollar-denominated U.S. Government securities with a maturity between 1 and 10 years. Issues are rated at least Baa3/BBB by two of the following rating agencies: Moody's, Fitch or S&P.

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