Dynamic spending strategies in retirement

Maria A. Bruno, CFP®
Vanguard Investment Strategy Group

Three broad retirement themes

- How do I invest my portfolio during retirement?
- What is a reasonable spending rate from my portfolio?
- What are some tax strategies to consider?

How do I invest my portfolio during retirement?
FOR FINANCIAL ADVISORS ONLY. NOT FOR PUBLIC DISTRIBUTION.

Yields for many traditional portfolios continue to be at historically low levels

![Graph showing yield trends](image)


Notes: U.S. stocks were represented by the Dow Jones Wilshire 5000 Index through April 22, 2005, and the MSCI US Broad Market Index thereafter. U.S. bonds were represented by the Barclays U.S. Aggregate Bond Index through 2009 and the Barclays U.S. Aggregate Float Adjusted Index thereafter.

Past performance is no guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index. This hypothetical illustration does not represent the return on any particular investment.

Challenges of focusing only on increasing yield

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overweight high-yield bonds and/or underweight Treasury bonds</td>
<td>Increases the portfolio’s credit risk and heightens the overall volatility of the portfolio</td>
</tr>
<tr>
<td>Overweight longer-term bonds (extend duration*)</td>
<td>Increases the portfolio’s exposure to changes in interest rates</td>
</tr>
<tr>
<td>Shift within the equity portfolio to overweighting dividend-paying stocks</td>
<td>Increases exposure to certain sectors</td>
</tr>
</tbody>
</table>

* A measure of the sensitivity of the price (the value of principal) of a fixed-income investment to a change in interest rates. Duration is expressed as a number of years.

An alternative to an income-only approach: Total return

**Total return = Income return + Capital return**

**Total-return approach**

- **Advantages:**
  - Maintains asset allocation
  - Provides broader diversification
  - Free of factor, duration, or credit overweights
  - Significantly increases tax efficiency
  - Increases the longevity of the portfolio
  - Decreases the number of rebalancing events

- **Disadvantages:**
  - Is more involved to implement
What is a reasonable spending rate from my portfolio?

The 4% spending rule – alive or dead?

Comparison of spending strategies

| Strategy | Method | Percentage of portfolio with ceiling and floor | Percentage of portfolio
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategy</strong></td>
<td><strong>Order-earned growth by inflation</strong></td>
<td><strong>Withdraw a specific percentage of the portfolio each year, subject to upper and lower limits based on the prior year's spending.</strong></td>
<td><strong>Withdraw a specific percentage of the portfolio each year.</strong></td>
</tr>
<tr>
<td><strong>Key characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Ignored market performance</td>
<td>- Highly responsive to market performance. Spending may fluctuate significantly on both limits.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Provides short-term spending stability.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Long-term effect on the portfolio can be predictable.</td>
<td>- The portfolio is never depleted, however, long-term spending may remain unattainable if investment performance and investors change.</td>
<td></td>
</tr>
</tbody>
</table>
Dynamic spending strategy example

Important note: This hypothetical illustration does not represent the investment results of any particular portfolio. This example is illustrative only. The hypothetical numbers reflect the impact of compounding and inflation and are not intended to represent historical market performance.

Year 1
Ending balance: $1,060,000 (nominal) $1,060,000 (real)

Year 2
Ending balance: $1,069,740 (nominal) $1,038,582 (real)

Year 3
Ending balance: $1,079,154 (nominal) $1,017,206 (real)

Levers that influence spending rates

<table>
<thead>
<tr>
<th>Lower spending rate</th>
<th>Higher spending rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Longer</td>
<td>More conservative</td>
</tr>
<tr>
<td></td>
<td>Asset allocation</td>
</tr>
<tr>
<td>More aggressive</td>
<td>Shorter</td>
</tr>
<tr>
<td></td>
<td>Degree of certainty</td>
</tr>
<tr>
<td></td>
<td>desired</td>
</tr>
</tbody>
</table>

4% can still be a reasonable starting point

Portfolio withdrawal rates assuming 85% success rate

<table>
<thead>
<tr>
<th>Conservative</th>
<th>Moderate</th>
<th>Aggressive</th>
</tr>
</thead>
<tbody>
<tr>
<td>80% bond, 20% stock</td>
<td>50% bond, 50% stock</td>
<td>20% bond, 80% stock</td>
</tr>
</tbody>
</table>

Time horizon: 10 years, 20 years, 30 years, 40 years
Initial rate of spending: 9.6%, 5.4%, 4.1%, 3.6%
Tax strategies to consider

Tax diversification provides flexibility in the future

- Taxable, tax-deferred, Roth
- The more equal the account types, the greater tax diversification
- Helps "hedge" direction of future tax rates
- Portfolio construction strategies such as asset location and tax-efficient spending

Source: Vanguard

Roth: The appeal

- Basic rule of thumb (and just that):
  - If you think you’ll be in the same, or higher, tax rate in retirement—when you’re making withdrawals—then consider Roth
  - It’s the marginal rate that matters
- Current rate taxes are "locked-in"
- Tax diversification
- Can save more on an after-tax basis by investing the maximum amount
- No lifetime RMDs
- Estate planning benefits

\* The tax rate for each additional dollar of income
Source: Vanguard
Roth: Understanding conversions

Traditional IRA ➔ "Distribution" ➔ Roth IRA

Income taxes due on pre-tax balance
Can maximize benefit by using non-IRA assets to pay income tax.
- Effectively shelters more in the Roth.
- If < 59½ years old, IRA assets withheld to pay the conversion tax are subject to penalty and income taxes.

Roth: Income tax considerations when converting

• Conversion could bump you into a higher marginal income tax rate.
  - If so, consider partial conversions.

• Conversion income is not subject to the 3.8% Medicare surtax, but additional income could trigger the tax on other passive income

• Atypical lower tax year may be a good time to convert

• Charitable contributions cap is based on AGI, which conversions increase

• Alternative minimum tax considerations

Roth: In retirement

No lifetime RMDs.
Conversions reduce future RMDs on traditional IRAs.
If you don’t need the assets, grow tax-free for heirs.
Withdrawals do not factor into whether Social Security benefits are taxable.¹

¹Conversion income would affect calculation for the year when income is recognized.
Tax-efficient spending: start with what’s already taxed

Nonportfolio cash flows
- Social Security
- Pension
- Trust
- Annuity-like payments

Required minimum distributions
... if applicable

Taxable portfolio cash flows
- Interest
- Dividends
- Trust
- Capital gains

Spending account
Money market or checking account

Tax-efficient spending: advisors “alpha”

Taxable accounts

Will future marginal tax bracket be:
- Higher?
- Lower?

Tax-deferred

Roth

Tax-deferred

Roth

Tax-efficient spending: Example

Average IRR of different withdrawal order strategies

Source: Vanguard.
Social Security: Claiming strategies offer flexibility

Timing affects benefits—each year you delay beyond normal retirement age, benefits increase 8%

Factors to consider:

• Personal and family health history and longevity
• Plans to continue working while collecting benefits
• Spouse's age and earnings history
• Other income sources

Important information (continued)

The Vanguard Capital Markets Model® is a proprietary financial simulation tool developed and maintained by Vanguard's primary investment research and advice teams. The model forecasts distributions of future returns for a wide array of broad asset classes. Those asset classes include U.S. and international equity markets, several maturities of the U.S. Treasury and corporate fixed income markets, international fixed income markets, U.S. money markets, commodities, and certain alternative investment strategies. The theoretical and empirical foundation for the Vanguard Capital Markets Model is that the returns of various asset classes reflect the compensation investors require for bearing different types of systematic risk (beta). At the core of the model are estimates of the dynamic statistical relationship between risk factors and asset returns, obtained from statistical analysis based on available monthly financial and economic data from as early as 1960. Using a system of estimated equations, the model then applies a Monte Carlo simulation method to project the estimated interrelationships among risk factors and asset classes as well as uncertainty and randomness over time. The model generates a large set of simulated outcomes for each asset class over several time horizons. Forecasts are obtained by computing measures of central tendency in these simulations. Results produced by the tool will vary with each use and over time.

The Vanguard Capital Markets Model® (VCMM) is based on a statistical analysis of historical data. Future returns may behave differently from the historical patterns captured in the VCMM. More important, the VCMM may be underestimating extreme negative scenarios unobserved in the historical period on which the model estimation is based.

The Vanguard Capital Markets Model® includes a comprehensive factor structure that allows the model to capture and explicitly account for the major sources of risk and return that drive returns and risks in each asset class. This factor structure includes factors that affect U.S. and international equity markets, several maturities of the U.S. Treasury and corporate fixed income markets, international fixed income markets, U.S. money markets, commodities, and certain alternative investment strategies.

The VCMM projection is a statistical simulation of potential future outcomes for each asset class. There are no guarantees that these outcomes will occur. There are no guarantees that the outcome of any investment strategy, including the Vanguard Capital Markets Model®, will be realized. There are no guarantees that the Vanguard Capital Markets Model® will perform as expected in the future. Risk is a necessary, integral part of investing. The amount of risk that an individual investor should take on is dependent on, among other factors, the investment objectives of the investor, investor risk tolerance, and an investor's time horizon. Investors should have a diversified portfolio of investments that includes the Vanguard Capital Markets Model® in addition to other asset classes that are consistent with an investor's investment objectives, risk tolerance, and time horizon. The Vanguard Capital Markets Model® does not accept any responsibility for the investor's decision to use the Vanguard Capital Markets Model® as a source of investment decisions.

© 2014 The Vanguard Group, Inc. All rights reserved.