Strategies for Managing Sequence of Return Risk in Retirement

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Handouts/Additional Materials at: kitces.com/FPAGA17

Basics of Safe Withdrawal Rates

- Fundamental client questions:
  - How much can I safely spend from this portfolio without needing to worry about the markets?
Basics of Safe Withdrawal
Rates

- Fundamental client questions:
  - If I want to spend $XXX, how much money do I need in the account to safely retire?
Basics of Safe Withdrawal Rates

BOND COUPONS  DIVIDENDS  CAPITAL GAIN  PRINCIPAL

Linear Projections & Safe Spending

- Case example:
  - 60-year-old retiree for 30-year retirement
  - Inflation assumed to be 3%
  - 60% stocks, 40% bonds (rebalanced annually)
  - Stocks assumed to earn 10% (real 7%)
  - Bonds assumed to earn 5% (real 2%)
  - Average portfolio return 8% (real 5%)
  - Initial portfolio of $1,000,000
Linear Projections & Safe Spending

### Table: Linear Projections & Safe Spending

<table>
<thead>
<tr>
<th>Year</th>
<th>Initial Balance</th>
<th>Portfolio Growth</th>
<th>Portfolio Withdrawl</th>
<th>End of Year Balance</th>
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<td>$13,000</td>
<td>($156,785)</td>
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</tbody>
</table>

 Linear Projections & Safe Spending

- **Spending**: Yellow line
- **EDY balance**: Red line

Handouts/Materials: kitces.com/FPAGA17

@michaelkitces
Linear Projections & Safe Spending

• Question: How much can be safely spent?
  • Answer: $65,895, or about 6.6%

• Is 6.6% the “safe withdrawal rate”?
  • Safe withdrawal rate versus Initial withdrawal rate

• Primary Challenge:
  • Assumes returns are the same each and every year

Return Sequencing

• Consequences of return sequencing:
  • What happens if the *average* return of stocks is 10%, but the returns vary from year to year?
  • What if the first two years are 0%, and the last two are 20%?
  • What if the first two years are 20%, and the last two are 0%?
Linear Projections & Safe Spending

0% in the first two years, +20% in the last two years

Linear Projections & Safe Spending

+20% in the first two years, 0% in the last two years
Return Sequencing

- Consequences of return sequencing:
  - What happens if inflation varies as well?

Return Sequencing

- Retiree environment from 1969 to 1999
  - Inflation: 5.33%
  - Equities (S&P 500): 13.39% (8.06% real)
  - Bonds (5-year Treas.): 8.62% (3.29% real)

  - What is the (linear) safe withdrawal rate?
    - 60% equities, 40% fixed portfolio
    - Average portfolio return: 11.48%
Linear Projections & Safe Spending

• Question: How much can be safely spent with 1969-1999 returns?
• Answer: $74,308, or about 7.4%!

• What happens when we take into account the order of returns and inflation?
Linear Projections & Safe Spending

Returns & inflation from 1969 to 1999

Balance ($) vs Spending ($)

EOY balance

Reverse returns & inflation from 1999 to 1969!
Return Sequencing

• The sequences of returns matter, a lot!
• Disparities in the early years have a magnified effect over time!
• The extent of volatility matters too!
• It’s not just about early crashes…
  – But slow recoveries!
  – Or extended periods of low returns!

Managing Sequence Risk

• How do you manage sequence-of-return risk?

Safe Withdrawal Rates  Dynamic Asset Allocation  Dynamic Spending Strategies
What is the Safe Withdrawal Rate (SWR) approach?

- Usually you don’t need to be “this” conservative?
  - But you do it anyway, “just in case”!

Terminal Wealth after 30 Years of Following the 4% Safe Withdrawal Rate: All Historical Years
Safe Withdrawal Rates (SWR)

- Current research summary:

<table>
<thead>
<tr>
<th>Base Withdrawal Rate</th>
<th>4.0% - 4.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjustments</td>
<td></td>
</tr>
<tr>
<td>Foccs/Alpha</td>
<td>-1% to 1%</td>
</tr>
<tr>
<td>Taxes</td>
<td>-0.25% to -0.75%</td>
</tr>
<tr>
<td>Legacy/Longevity</td>
<td>0% to -0.4%</td>
</tr>
<tr>
<td>Hedge</td>
<td>-0.5% to 1%</td>
</tr>
<tr>
<td>Time Horizon</td>
<td></td>
</tr>
<tr>
<td>Diversification</td>
<td>0.5% to 1%</td>
</tr>
<tr>
<td>Spending Flexibility</td>
<td>0% to 1%</td>
</tr>
<tr>
<td>Risk Tolerance</td>
<td>0% to 1%</td>
</tr>
<tr>
<td>Valuation Environment</td>
<td>0% to 1%</td>
</tr>
<tr>
<td>Tactical Asset Allocation</td>
<td>0% to 0.2%</td>
</tr>
<tr>
<td>Final Withdrawal Rate</td>
<td>Sum Total of Adjustments</td>
</tr>
</tbody>
</table>

Dynamic Asset Allocation

- Managing sequence risk via asset allocation strategies

Bucket Strategies
Annuitization Floor
Rising Equity Glidepath
Valuation-Based Asset Allocation
The Retirement Bucket Approach

- Segment retirement spending needs into three buckets

The Annuity Bucket Approach

- Annuity alternatives to the “traditional” bucket strategy
The Annuity Bucket Approach – Over Time

- Annuity payments lead to asset allocation shift over time

The Annuity Bucket Approach – Over Time

- Partial annuitization strategy = *higher* equity exposure!
Rising Equity Glidepaths

![Retirement scenario generator diagram]

Source: Monevator blog - http://monevator.com/sup/shares-in-retirement

Early Returns & SWR

- The SWR is heavily influenced by early returns

Annualized real returns of 60/40 for 15 years vs. 30-yr safe withdrawal rate

![Graph showing annualized real returns vs. safe withdrawal rates]

Starting Year
- 15-year annualized real return
- 30-year safe withdrawal rate
Forecastsing Market
Returns

• P/E ratios strongly related to subsequent returns

Starting P/E 10 vs. subsequent 15-year return of balanced portfolio

Starting Year
•
Annualized Return

Starting P/E 10

-2.0%
0.0%
2.0%
4.0%
6.0%
8.0%
10.0%
12.0%
14.0%
16.0%
18.0%
20.0%
22.0%
24.0%
26.0%
28.0%
30.0%
32.0%
34.0%
36.0%
38.0%
40.0%

Forecasting Safe Withdrawal Rates

• Using P/E ratios to predict safe withdrawal rates

Starting P/E 10 vs. Safe Withdrawal Rate over subsequent 30-year period

Starting Year
•
Safe Withdrawal Rate

Starting P/E 10

Starting Year
•
Safe Withdrawal Rate

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Valuation-Based Allocations

Dynamic Spending Strategies

- Managing sequence risk via dynamic spending

Spending Ratchets
Floor/Ceiling Guardrails
Ratcheted Spending

• Start with a “SWR base” but ratchet higher
  – Most years will do better, simply need a target threshold!

Dynamic Spending Strategies

Current Withdrawal Rate (CWR)

6% Ceiling

5% Initial Withdrawal Rate (IWR)

4% Floor
Dynamic Spending Strategies

Current Probability Of Success (Monte Carlo)

5% Initial Withdrawal Rate (IWR)

75% Floor

Years in Retirement

97% Ceiling

Strategies For Sequence Risk

• Setting A Strategy To Manage Sequence Risk

Safe Withdrawal Rates

Dynamic Asset Allocation

Dynamic Spending
The Withdrawal Policy Statement

• Crafting A Withdrawal Policy Statement

1. Income goals (how much?)
2. Available assets (what will we use?)
3. The initial withdrawal rate;
4. Liquidation/sourcing methodology (interest/dividends/capital gains; account types)
5. Adjustment triggers (thresholds & magnitudes)

Managing Sequence Risk Today

Today’s Environment:
High Valuation... AND Low Yields!?
The Withdrawal Policy Statement

- What's Your Plan For Managing Sequence Risk?
  - Safe Withdrawal Rates
  - Dynamic Asset Allocation
  - Dynamic Spending

Questions?

Handouts & additional materials: www.kitces.com/FPAGA17

Contact: questions@kitces.com