Outline of Talks

1. Consumption Smoothing
2. MaxiFi Planner – Illustrating the Economics Approach
3. Pricing Lifestyle Decisions – An Example: When Can I Retire?
4. Secrets to Maximizing Lifetime Social Security Benefits
5. Finding Alpha – Raising Households' Living Standards at No Risk
Economics-Based Financial Planning

- Smooths Your Living Standard
- Raises Your Living Standard
- Protects Your Living Standard
- Prices Lifestyle Decisions
Consumption Smoothing
Achieving a Stable Living Standard
Living Standard is the Bottom Line

- Living Standard – Consumption Per Household Member**
- Households Seek to Maintain their Living Standard or Have it Change Gradually
- Consumption Smoothing Underlies Saving/Spending, Insurance, Portfolio Choice

** Adjusted for economies in shared living and lower cost of children
Consumption Smoothing
Subject to Two Important Constraints

● Lifetime Budget Constraint

● Annual Cash-Flow Constraints
Consumption Smoothing – We All Do It!
Consumption Smoothing – the Physiological Basis

- Satiation – No One Wants to Eat 20 Cupcakes at One Sitting
- No One Wants to Party Today and Starve Tomorrow or Vice Versa
- Squirrels Gather Nuts to Smooth Consumption
- Humans Save, Insure, and Diversify to Smooth Consumption
Consumption Smoothing Is Difficult
Myriad Interconnected Factors
The Disconnect Between Economics-Based and Conventional Financial Planning

- Economics-Based Planning Is at Odds with Conventional Planning
- Economists Don’t Teach Conventional Planning
- (Most) Practitioners Don’t Employ Economics-Based Planning
Problems with Conventional Financial Planning

- Conventional Planning Produces Consumption Disruption
- Conventional Planning Ignores Lifetime Budget Constraint
- Consumption Planning Ignores Cash-Flow Constraints
No Concern with Consumption Smoothing

● Guesswork – You specify/target desired post-retirement spending

● Mistargeting Is Guaranteed – Ensures consumption disruption

● No Lifetime Budgeting – Spend whatever you’d like

● No Recognition of Cash-Flow Constraints
Case Study

- Dan and Sue age 58. Kids are grown.
- Dan earns $100k. Sarah earns $150k. Will retire and take Social Security at 62.
- Live in Illinois in a $850k home with a $250k mortgage.
- Jack has $750k in retirement accounts. Sarah has $1 million.
- Couple has $50k in regular assets.
# Dan and Sue’s Lifetime Balance Sheet

## Lifetime Income

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor Earnings</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Social Security Benefits</td>
<td>$2,019,208</td>
</tr>
<tr>
<td>Pensions and Annuities</td>
<td>$0</td>
</tr>
<tr>
<td>Retirement Account Withdrawals</td>
<td>$2,322,125</td>
</tr>
<tr>
<td>529 Account Withdrawals</td>
<td>$0</td>
</tr>
<tr>
<td>Reserve Fund Assets</td>
<td>$0</td>
</tr>
<tr>
<td>Real Estate Income</td>
<td>$0</td>
</tr>
<tr>
<td>Special Receipts</td>
<td>$0</td>
</tr>
<tr>
<td>Regular Assets</td>
<td>$50,625</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$5,391,958</strong></td>
</tr>
</tbody>
</table>

## Lifetime Spending

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing Expenses</td>
<td>$609,000</td>
</tr>
<tr>
<td>Other Expenses</td>
<td>$0</td>
</tr>
<tr>
<td>Federal and State Taxes</td>
<td>$778,117</td>
</tr>
<tr>
<td>Retirement Account Contributions</td>
<td>$32,000</td>
</tr>
<tr>
<td>529 Contributions and Expenses</td>
<td>$0</td>
</tr>
<tr>
<td>Ending Reserve Fund</td>
<td>$0</td>
</tr>
<tr>
<td>Medicare Part B Premiums</td>
<td>$258,752</td>
</tr>
<tr>
<td>Life Insurance Premiums</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Total Discretionary Spending</strong></td>
<td><strong>$3,714,088</strong></td>
</tr>
</tbody>
</table>

**TOTAL**                             **$5,391,957**
Consumption Smoothing
Targeting 20 Percent Too Low
Discretionary Spending Drops from $108,102 to $86,482
Maximizing Dan & Sue’s Lifetime Discretionary Spending

$709,292
Increase in Lifetime Discretionary Spending Under the Maximized Plan
Manually Maximize Dan & Sue’s Lifetime Spending
Example: Both Retire at 67

$1,126,058
Increase in Lifetime Discretionary Spending Under the Manual Optimization
Conventional Investment Advice

- Set a post-retirement spending target
- Assume pre-retirement spending is given
- Simulate plan success probability – dying with money on the table
- Choose portfolio to maximize plan success probability subject to a given level of failure risk
- Advice predicated on
  - Sub-optimal saving pre-retirement
  - Sub-optimal spending post-retirement
  - Assuming no spending adjustment during retirement
- Conventional planning reflects computational ease, not a method grounded in economic science
Economics-Based Investment Advice

- Economics focus is on Expected Lifetime Utility
- Utility in a given year is a mathematical formula based on the household’s living standard in that year
- Utility function (formula) depends on key variable – coefficient of risk aversion
- Expected lifetime utility determined by living standard trajectories
- Optimal time-varying investment strategy maximizes expected lifetime utility
- Upside Investing
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