Pre-retirement risks and the likely impact of new proposals to mitigate their impact

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Introduction

- Several recent studies have evaluated the impact of the major post-retirement risks on retirement readiness (viz., longevity risk, long-term care risk and post-retirement investment risk) as well as new proposals to deal with these risks (e.g., QLACs).
- This presentation will analyze the impact of:
  1. increasing the number of employees offered some type of retirement plan (including the potential impact of auto-IRAs)
  2. leakages from the defined contribution system and suggested proposals to “plug” them
  3. modifying the employer incentives to increase employee contributions to higher levels (e.g., stretch match proposals)
  4. a permanent reduction in expected equity rates of return
  5. a one-time shock in the equity markets similar to what was experienced in August
EBRI’s Retirement Security Projection Model®

• Accumulation phase
  • Simulates retirement income/wealth for Boomers and Gen Xers from defined contribution, defined benefit, IRA, Social Security and net housing equity
    • Pension plan parameters coded from a time series of several hundred plans.
    • 401(k) asset allocation and contribution behavior based on individual administrative records
      o Annual linked records dating back to 1996
      o More than 24 million employees in 60,000 plans
    o More than 25 million IRA accounts owned by 20 million unique individuals

• Retirement phase
  • Simulates 1,000 alternative life-paths for each household, starting at 65
  • Deterministic modeling of costs for food, apparel and services, transportation, entertainment, reading and education, housing, and basic health expenditures.
  • Stochastic modeling of longevity risk, investment risk, nursing facility care and home based health care.

• Produces a Retirement Readiness Rating
  • Percentage of simulated life-paths that do NOT run short of money in retirement
Retirement Income Adequacy Depends on the Definition Used

2014 Retirement Readiness Ratings With and Without Nursing Home and Home Health Costs for Boomers and Gen Xers

Percentage of Simulated Life Paths that will NOT Run Short of Money in Retirement at Various Thresholds

<table>
<thead>
<tr>
<th>Threshold</th>
<th>With LTC costs included</th>
<th>Without LTC costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>80%</td>
<td>14.0%</td>
<td>8.3%</td>
</tr>
<tr>
<td>90%</td>
<td>10.6%</td>
<td>7.1%</td>
</tr>
<tr>
<td>100%</td>
<td>57.6%</td>
<td>75.5%</td>
</tr>
</tbody>
</table>

## Impact of modifying coverage

### Reduction in 2014 Retirement Savings Shortfalls* for Various Scenarios (Baseline = $4.13 trillion)

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Retirement Savings Shortfall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline with universal DC, observed opt-out</td>
<td>19.4%</td>
</tr>
<tr>
<td>Baseline with automatic IRA at 3 percent, no opt-out</td>
<td>6.5%</td>
</tr>
<tr>
<td>Baseline with automatic IRA at 3 percent, 10% optout</td>
<td>5.9%</td>
</tr>
<tr>
<td>Baseline with automatic IRA at 3 percent, 25% optout</td>
<td>4.9%</td>
</tr>
<tr>
<td>Baseline with automatic IRA at 3 percent, 50% optout</td>
<td>3.3%</td>
</tr>
<tr>
<td>Baseline with automatic IRA at 3 percent, 75% optout</td>
<td>1.6%</td>
</tr>
<tr>
<td>Baseline with automatic IRA at 3 percent, no optout</td>
<td>11.9%</td>
</tr>
</tbody>
</table>

- **Universal defined contribution scenario** assumes all employers not currently offering DB and/or DC start sponsoring a defined contribution plan in 2015
  - But they will choose one similar to employers in their size range
- **Assumptions for auto IRA scenario**
  - All employers (regardless of size) are required to provide DB/DC or Auto IRA
  - No erosion from DC to Auto IRA
  - Husband’s employer size is used to categorize employer size for married HH
  - 100% autocorrelation for employer size

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*Retirement Savings Shortfalls (RSS) represent the present value (at age 65) of all simulated deficits in retirement for households where the head of household is 35–64.

Reduction in Retirement Savings Shortfalls by Age for Coverage Modifications

<table>
<thead>
<tr>
<th>Age</th>
<th>Auto IRA (default employee contribution of 3%; assumes no opt-out)</th>
<th>Universal DC (empirical opt-out rates)</th>
</tr>
</thead>
<tbody>
<tr>
<td>35-39</td>
<td>10.6%</td>
<td>28.2%</td>
</tr>
<tr>
<td>40-44</td>
<td>9.9%</td>
<td>25.9%</td>
</tr>
<tr>
<td>45-49</td>
<td>7.9%</td>
<td>22.1%</td>
</tr>
<tr>
<td>50-54</td>
<td>5.1%</td>
<td>15.5%</td>
</tr>
<tr>
<td>55-59</td>
<td>3.1%</td>
<td>10.1%</td>
</tr>
<tr>
<td>60-64</td>
<td>1.8%</td>
<td>4.4%</td>
</tr>
</tbody>
</table>

Impact of Leakages for Automatic Enrollment Plans Assuming No Participant Behavior Change for Participation, Contribution or Asset Allocation

Percentage of those not reaching the threshold replacement rate when leakages exist who would reach an 80 percent real replacement rate if the leakages were removed

<table>
<thead>
<tr>
<th></th>
<th>Lowest income quartile</th>
<th>Second income quartile</th>
<th>Third income quartile</th>
<th>Highest income quartile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan Defaults</td>
<td>4.2%</td>
<td>3.3%</td>
<td>4.0%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Hardship WD w 6 mo suspension</td>
<td>8.0%</td>
<td>6.7%</td>
<td>4.3%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Cashouts</td>
<td>20.0%</td>
<td>15.9%</td>
<td>12.7%</td>
<td>10.3%</td>
</tr>
<tr>
<td>All</td>
<td>27.3%</td>
<td>22.7%</td>
<td>18.3%</td>
<td>15.2%</td>
</tr>
</tbody>
</table>

Source: Jack VanDerhei, "The Impact of Leakages on 401(k) Accumulations at Retirement Age" Testimony for the ERISA Advisory Committee, June 17, 2014.

- The population simulated consists of workers currently ages 25–29 who will have more than 30 years of simulated eligibility for participation in a 401(k) plan.
- Workers are assumed to retire at age 65 and all 401(k) balances are converted into a real annuity at an annuity purchase price of 18.62.
- Plans are assumed to have automatic escalation with a 1 percent of annual compensation increase and 3 percent default contribution rates.
- Employees are assumed to revert their level of contributions to the default rate when they participate in a new plan and opt-out of automatic escalation in accordance with the probabilities in VanDerhei (September 2007)
Impact of stretch match

Percentage increase in 401(k) accumulations* at age 65 from FUTURE employee and employer contributions by income quartile if proposed stretch-match safe harbor was used instead of the PPA safe harbor: workers currently ages 25–29 participating in a 401(k) plan

Proposed stretch match alternative to the PPA safe harbor:

- Default at 6 percent
- Auto increase of 2 percent per year until 10 percent
- Employer match of:
  - 50 percent on the first 2 percent,
  - 30 percent on the next 8 percent

\[ \text{Delta} = \text{difference between employer contribution under PPA and safe harbor} \]

![Graph showing percentage increase in matched-pairs differences by income quartile.]

<table>
<thead>
<tr>
<th>Income Quartile</th>
<th>25th Percentile</th>
<th>Median</th>
<th>75th Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest income quartile</td>
<td>1.4%</td>
<td>1.7%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Second</td>
<td>1.5%</td>
<td>1.8%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Third</td>
<td>3.2%</td>
<td>3.5%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Highest income quartile</td>
<td>3.4%</td>
<td>3.8%</td>
<td>4.1%</td>
</tr>
</tbody>
</table>

Percentage increase in 401(k) accumulations at age 65 from FUTURE employee and employer contributions by income quartile if proposed stretch-match safe harbor was used instead of the PPA safe harbor:

- Workers currently ages 25–29 participating in a 401(k) plan

* This includes 401(k) balances as well as IRA balances rolled over from 401(k) plans.

Impact of Return Assumptions on 2014 Retirement Readiness Ratings by Age Cohort

Baseline Returns (real: 8.6% equity, 2.6% fixed)
- Real Returns Reduced by 10%
- Real Returns Reduced by 25%
- Real Returns Reduced by 50%

Early Boomers | Late Boomers | Gen Xers
---|---|---
44% | 46% | 48%
46% | 48% | 50%
48% | 50% | 52%
50% | 52% | 54%
52% | 54% | 56%
54% | 56% | 58%
56% | 58% | 60%

What is the impact of a one-time shock in the financial markets (e.g., August 2015)?

Monthly Change In Average Account Balances (by Age and Tenure) for August 2015 Among Consistent 401(k) Participants with Account Balances as of December 31, 2013: ExcludesContributions

<table>
<thead>
<tr>
<th>Years of Tenure with Current Employer</th>
<th>Age 25-34</th>
<th>Age 35-44</th>
<th>Age 45-54</th>
<th>Age 55-64</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4</td>
<td>-4.7%</td>
<td>-4.6%</td>
<td>-4.3%</td>
<td>-3.8%</td>
</tr>
<tr>
<td>5-9</td>
<td>-4.8%</td>
<td>-4.6%</td>
<td>-4.3%</td>
<td>-3.9%</td>
</tr>
<tr>
<td>10-19</td>
<td>-4.8%</td>
<td>-4.8%</td>
<td>-4.5%</td>
<td>-4.0%</td>
</tr>
<tr>
<td>20-29</td>
<td>-6.0%</td>
<td>-5.0%</td>
<td>-4.0%</td>
<td>-3.0%</td>
</tr>
<tr>
<td></td>
<td>-5.0%</td>
<td>-4.0%</td>
<td>-3.0%</td>
<td>-2.0%</td>
</tr>
<tr>
<td></td>
<td>-4.0%</td>
<td>-3.0%</td>
<td>-2.0%</td>
<td>-1.0%</td>
</tr>
<tr>
<td></td>
<td>-3.0%</td>
<td>-2.0%</td>
<td>-1.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Sources: 2013 Account Balances: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project; 2015 Account Balances: EBRI estimates. The projection is based on all participants with account balances at the end of 2013 and contribution information for that year.
What is the impact of a one-time shock in the financial markets (e.g., August 2015)?

Increase in RSS by age

Key Take-Aways

• 58 to 82 percent of Boomer and Gen X households are expected to have “adequate” retirement income
  • Depends on definition of adequacy
  • If long-term costs are eliminated, this increases to 76-91 percent

• Total retirement shortfalls (in 2014$) for households 35-64 = $4.13 trillion
  • Automatic IRA with 3 percent default and NO opt-outs decrease that by 6.5 percent
  • Universal DC (with empirically observed opt-outs) decrease that by 19.4 percent
  • Both have relatively limited impact on those on the verge of retirement

• 1 in 5 of “middle income” 401(k) participants with at least 30 years of eligibility who are simulated to not have at least a combined 80 percent real replacement rate would do so if all three forms of leakages were eliminated
  • Assuming no participant behavior change for participation, contribution or asset allocation

• While future market returns may have a major influence on account balances, they have a muted impact on overall retirement income adequacy
  • Many of those “at risk” have only limited market exposure

• A one-time shock in the markets (similar in magnitude to August 2015) is likely to have a de minimis impact on overall retirement deficits