Developed nations are “aging”

- “Macro Aging”
  Changing age distribution—older
    Mainly from permanent drop in birth rates after 1965

- “Micro Aging”
  People are living longer
    Lower death rates
    Higher life expectancy

- Different Challenges—Different Solutions—Consider the U.S.
Cause of “Macro Aging”

Mostly drop in birth rates

U.S. Total Fertility Rate: With and Without Adjustment for Survival to Age 10

<table>
<thead>
<tr>
<th>Year</th>
<th>TFR</th>
<th>AdjTFR</th>
</tr>
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<tbody>
<tr>
<td>1875-1925</td>
<td>3.67</td>
<td>2.85</td>
</tr>
<tr>
<td>1926-1965</td>
<td>2.84</td>
<td>2.69</td>
</tr>
<tr>
<td>1966-1990</td>
<td>1.99</td>
<td>1.95</td>
</tr>
<tr>
<td>1991-2003</td>
<td>2.01</td>
<td>1.99</td>
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</tbody>
</table>
Implications of “Macro Aging”

Lower birth rates shift age distribution

![Age Distribution of the Population Age 25+, 1940 to 2100 (2015TR)](image)
Implications of “Macro Aging”

What if birth rates had stayed at 3.0 per woman after the “boom”?

Age Distribution of the Population Age 25+, 1940 to 2100 (2015TR):
What If Birth Rate (TFR) Had Stayed at 3.0?
Implications of “Macro Aging”

Change in age distribution
mainly due to drop in birth rates

![Chart showing Aged Dependency Ratio (Population 65+/20-64) from 1940 to 2100. The chart indicates that the Aged Dependency Ratio is currently (2015) at TR. It shows two scenarios: Actual and TR Intermediate, where TFR remain at 3.0 after 1964, and TFR remain at 3.3 after 1964. The ratio is expected to increase over time, with a sharp rise starting around 2020.](chart.png)
Implications of “Macro Aging”

◆ It is a Pay-As-You-Go world
  – In the aggregate, \( consumption = production \)

◆ Consider drop in birth rate from 3 to 2
  – The older age distribution requires:
    » Elders consume less—\( \frac{2}{3} \) as much,
    » Working age share more—\( \frac{3}{2} \) as much,
    » Elders work a lot longer—5 years,
    » Or some combination
Solutions for “Macro Aging”

- Average consumption is reduced
  - *The only question is how to distribute*

- Social Security has exactly the same challenge
  - The older age distribution requires:
    » Beneficiaries receive less— 25% less,
    » Workers pay more— 33% more,
    » Increase “Normal Retirement Age”— 5 years,
    » Or some combination
Ways to lower Social Security cost

◆ Lower benefits for retirees who are not disabled?
  – Increase normal retirement age (lowers OASDI cost, but increases DI cost) — *Indexing solves less than 20% of the LR deficit*
  – Can exempt long-career low earners

◆ Lower benefits mainly for high earners?
  – Reduce PIA above some level
  – Often combined with increasing PIA below some level, subject to work year requirements

◆ Lower benefits mainly for the oldest old?
  – Reduce the COLA
  – Some say increase it with the CPI-E (based on purchases of consumers over age 62)
Ways to increase Social Security revenue

- Raise tax on highest earners?
  - Increase taxable maximum amount
  - Some tax on all earnings above the maximum

- Tax employer group health insurance premiums?
  - Affects only middle class if taxable maximum remains

- Maintain larger trust fund reserves
  - Added interest/yield can lower needed taxes

Go to: www.ssa.gov/OACT for more proposed changes
Cause of “Micro Aging”

*Mostly declining death rates*

![Graph showing declining death rates over time.](graph.png)
Implications of “Micro Aging”

Rising Life Expectancy

Life Expectancy at Birth and at 65 (Period)
Projections from 2014 Trustees Report Intermediate

Female at birth
Male at birth
Female at 65
Male at 65
Implications of “Micro Aging”

- **Most people are not saving enough**
  - Desire to “consume now”

- **Those who are saving do NOT annuitize**
  - We have succeeded too well on accumulation?
    » Once accumulated, people won’t give it up
  - Annuities are not valued or understood
    » Fear of getting run over by a truck
    » Commercial annuities are expensive
    » Ford and GM now offering lump sum options
    » Even Social Security delayed retirement does not attract
Solutions for “Micro Aging”

◆ Encourage/require more saving
  – Default or mandatory 401k’s?
  – Increased Social Security benefits?

◆ Encourage/require more “longevity insurance”
  – Educate on value of annuities
  – Deferred annuities, like to 75 or 80?
    » Can these possibly attract more than a few?
  – Increase Social Security Early Eligibility Age (Now 62)
    » Or emphasize “aggressive claiming strategies”?

◆ Encourage/facilitate working longer
  – Invest in a more competitive workforce — education/training
  – Increase demand for domestic labor, but how?
  – Educate on increased lifetime consumption that results
How big is the Floor of Protection?

Replacement Rates at age 65, based on the 2015TR

Scheduled Monthly Benefit Levels as Percent of Career-Average Earnings by Year of Retirement at age 65

Source: Annual Recurring Actuarial Note #9 at www.ssa.gov/oact/NOTES/ran9/index.html
How about at age 62, where most start benefits? — 20 percent lower.

scheduled monthly benefit levels as percent of career-average earnings by year of retirement at age 62

source: annual recurring actuarial note #9 at www.ssa.gov/oact/NOTES/ran9/index.html
Payable benefits under the law, after Trust Fund reserves are depleted, are even lower

PAYABLE Monthly Benefit Levels as Percent of Career-Average Earnings by Year of Retirement at age 62

Low Earner ($21,519 in 2015; 25th percentile)
Medium Earner ($47,820 in 2015; 57th percentile)
High Earner ($76,512 in 2015; 82nd percentile)
Max Earner ($118,500 in 2015; 100th percentile)

Source: Annual Recurring Actuarial Note #9 at www.ssa.gov/oact/NOTES/ran9/index.html
But, wait—how about Budget Scoring? Don’t entitlements just keep borrowing?

Debt Held by the Public, Total Spending, and Total Revenues

Source: Congressional Budget Office, June 2015
Actually, NO. Budget Scoring is inconsistent with the law, and all past experience.

- **See Actuarial Opinion in the 2015 TR** *(also 2014TR)*

1) After reserves deplete, $10.7 trillion unfunded obligation cannot be paid under the law.
   - *Budget deems these “expenditures” creating public debt*

2) Reserve redemptions spend excess “earmarked” revenues invested in an earlier year.
   - *Budget deems these “a draw on other Federal resources”*

3) Trust Fund operations have NO direct effect on total Federal debt subject to ceiling in any year—and no *net* effect on publicly held debt.
   - *Budget says redemptions increase Federal debt held by the public and often gives no credit for reserve accumulation*
So—what if we project Federal debt consistent with the law?
For more information, go to:

http://www.ssa.gov/oact/

There you will find:

– Most recent and all prior OASDI Trustees Reports
– Detailed single-year tables for recent reports
– Our estimates for comprehensive proposals
– Our estimates for the individual provisions
– Actuarial notes; including replacement rates
– Actuarial Studies; including stochastic modeling
– Extensive databases
– Congressional testimonies