Social Security: Actuarial Work

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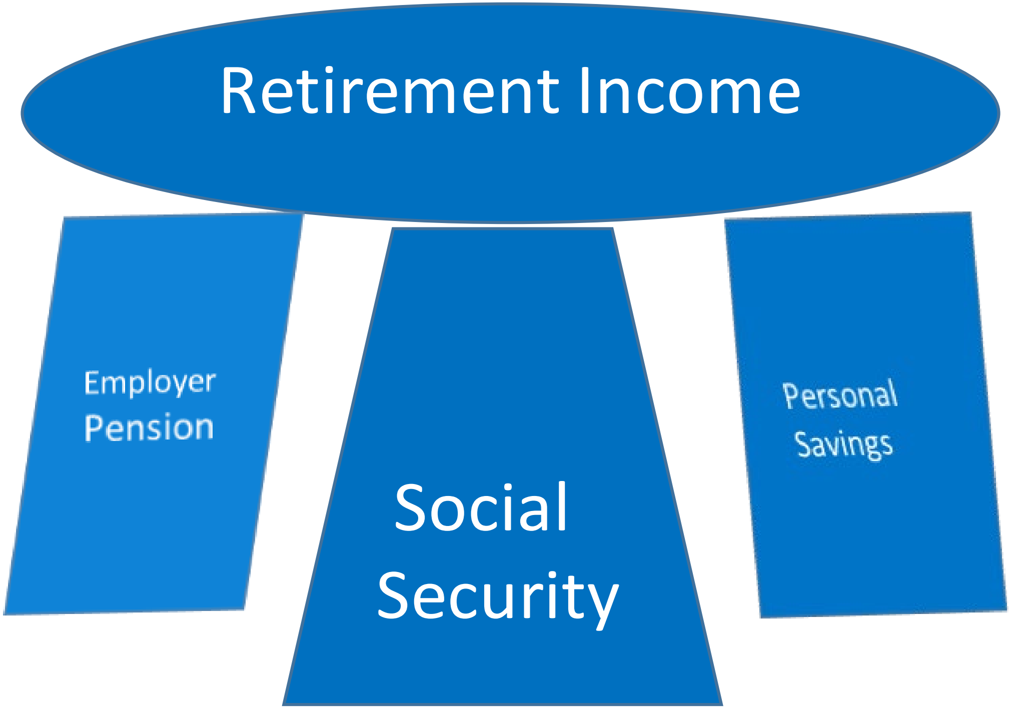
Three Legged Stool: Basis for Retirement Planning

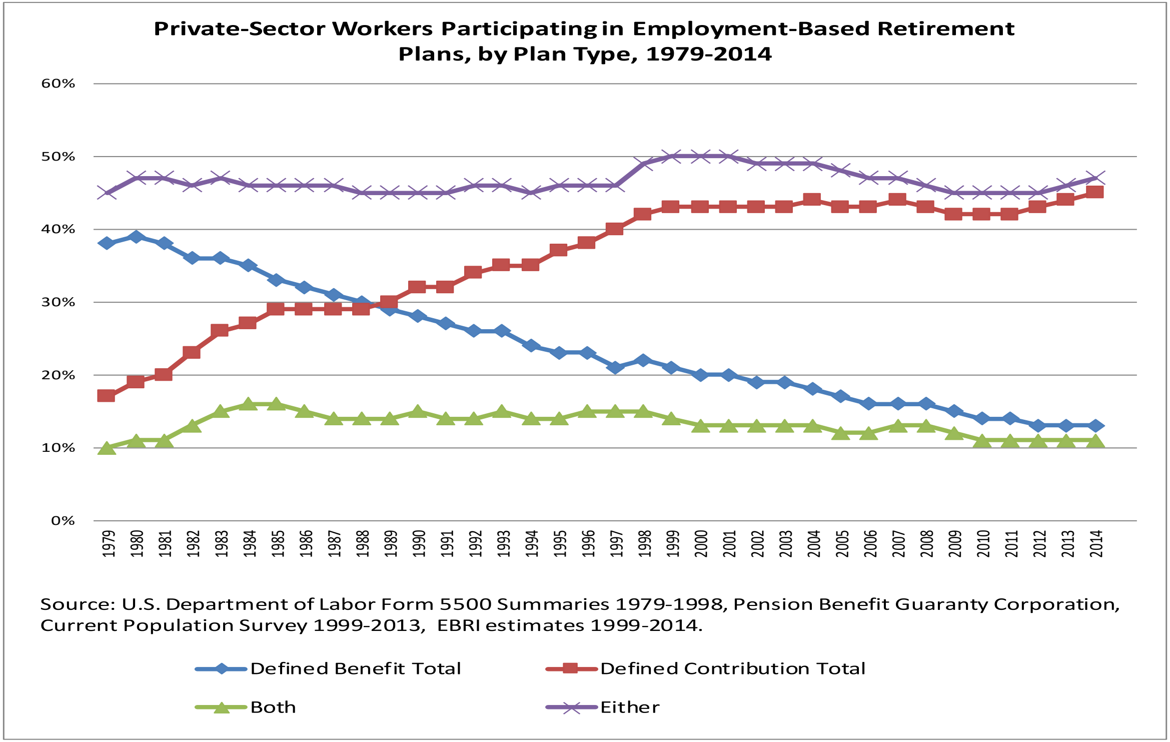
Common Wisdom—Aim for 75-80 Percent Replacement Rate



What We Do—Office of the Chief Actuary

1) Baseline projections of OASDI and SSI cost and revenue under current law
   a) For the Trustees Reports and SSA Reports
   b) For the President’s Budget
   c) SSA and Consolidated Financial Statements
2) Estimates for proposals to change law, regulations, and policy, for Congress, the Administration, and others
3) Actuarial notes and studies

Defined Benefit Plans Replaced by DC Plans:
And Lump Sum Options Increasing for DB Plans



Income Security: Public vs Private

- Public insurance (Social Security and Medicare) based on becoming vested, much like private insurance
  - ***Supplemental Security Income (SSI) based on need***

- Social Security covers essentially all workers in the U.S.
  - All but 25% of state and local government employees
  - Private insurance is optional and underwritten

- Retirement, disability, and survivors protection

- Extremely low admin costs, about 0.6% of benefits
  - Compared to “loss ratios” for private insurance

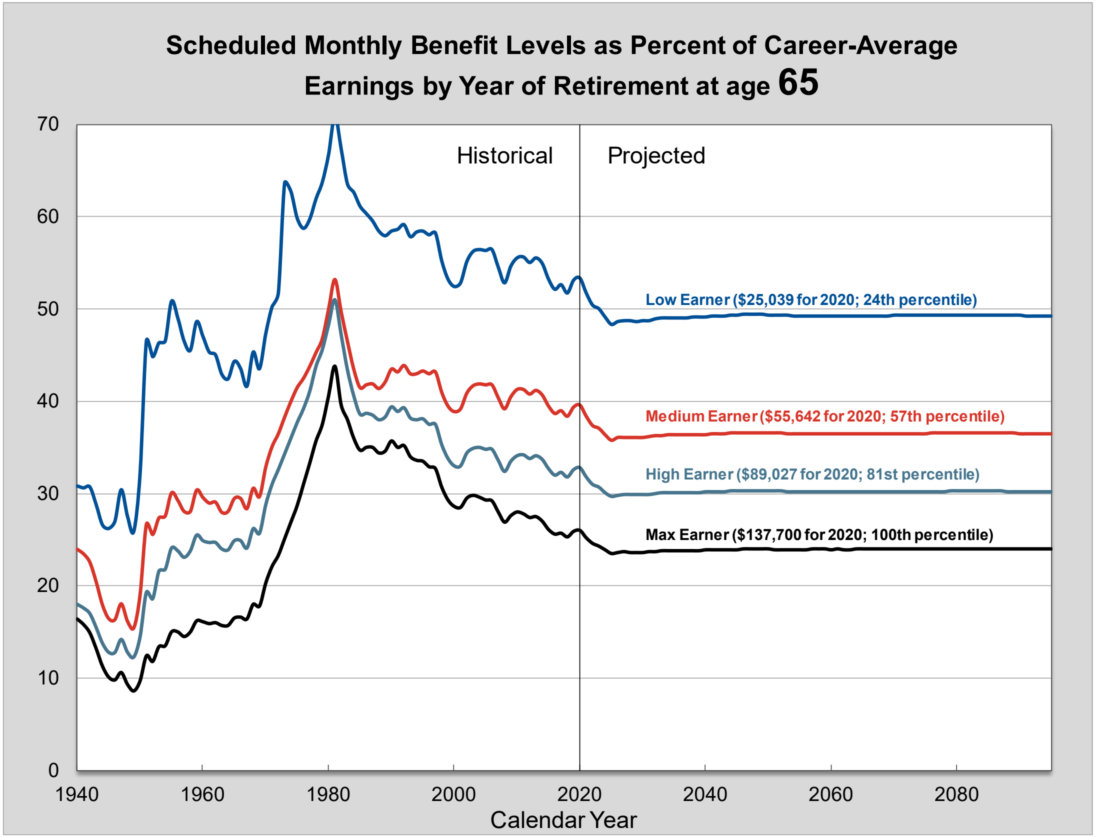
Income Security: OASDI and SSI

- We project the entire “Social Security Area” population
  - ***Including outlying areas like Puerto Rico, Guam, etc, and military abroad***
- We project the workforce, earned income, GDP
  - Earnings up to taxable maximum subject to payroll tax.
- Work with Census, DHS and most other agencies
- Massive internal data at SSA and CMS
- Models: Demographic/Economic/Beneficiaries/Benefit Levels/Aggregate annual cost and income and Trust Fund Operations

Social Security: What Does It Provide?

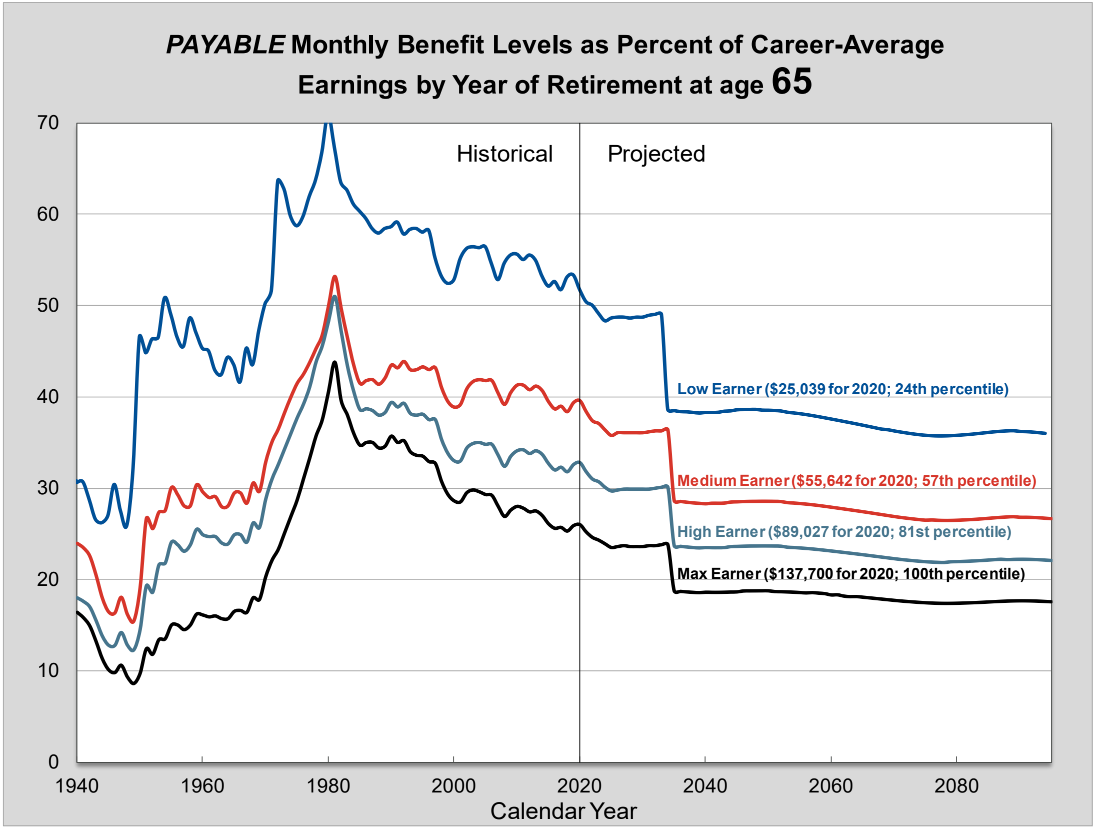
- Retirement and survivor monthly benefits started 1940
  - ***Never missed a payment!***
- Eligible age lowered from 65 to 62 in 1957 for women and 1962 for men
  - Full retirement age rises from 65 to 67 by 2022
- Disability benefits started in 1957
- **Benefits rise with average wage *across generations*—but with just with CPI after eligibility**
- Payroll taxes roughly pay-as-you go
  - Rose from 2% to 12.4% as system matured

Scheduled Benefit Replacement Rates Based on the 2020 Trustees Report



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



Source: Annual Recurring Actuarial Note #9 at www.ssa.gov/oact/NOTES/ran9/index.html

Social Security Financing

- Basically “pay-as-you-go”
  - Current workers provide for current beneficiaries
  - Trust Funds are “contingency reserve” because CANNOT borrow
  - Total spending to date cannot exceed income to date
- Current OASDI reserves (excess income) = $2.9 trillion
  - Available to augment tax income as needed
- Reserves projected to deplete in 2034* under current law
  - ***Expect Congress to act—as it always has***

** Per OCACT update of 2020 Trustees’ baseline (11/24/20)*

What We Do–Annual Trustees Reports

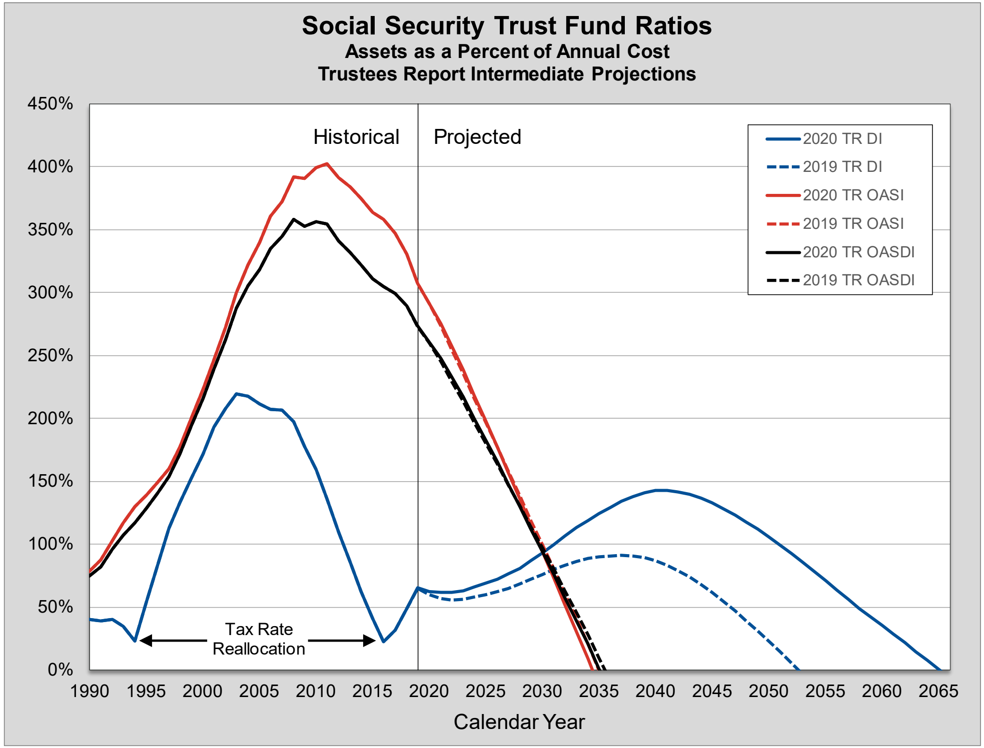
1) Trust Fund operations of the past year and the next five years
2) Actuarial status of the trust funds
   - This means the ability to meet the cost of scheduled benefits with scheduled revenue and trust fund reserves
   - And the extent to which scheduled revenue will fall short, forcing cuts or delays in benefits in the absence of legislative change
3) Results used for SOSI in Financial Statements

Solvency: OASDI Trust Fund Reserve Depletion in 2035

(same as last year)

Reserve depletion date varied from 2029 to 2042 in reports over the past 30 years (1991-2020).

DI Trust Fund – reserve depletion in 2065, thirteen years later than last year.



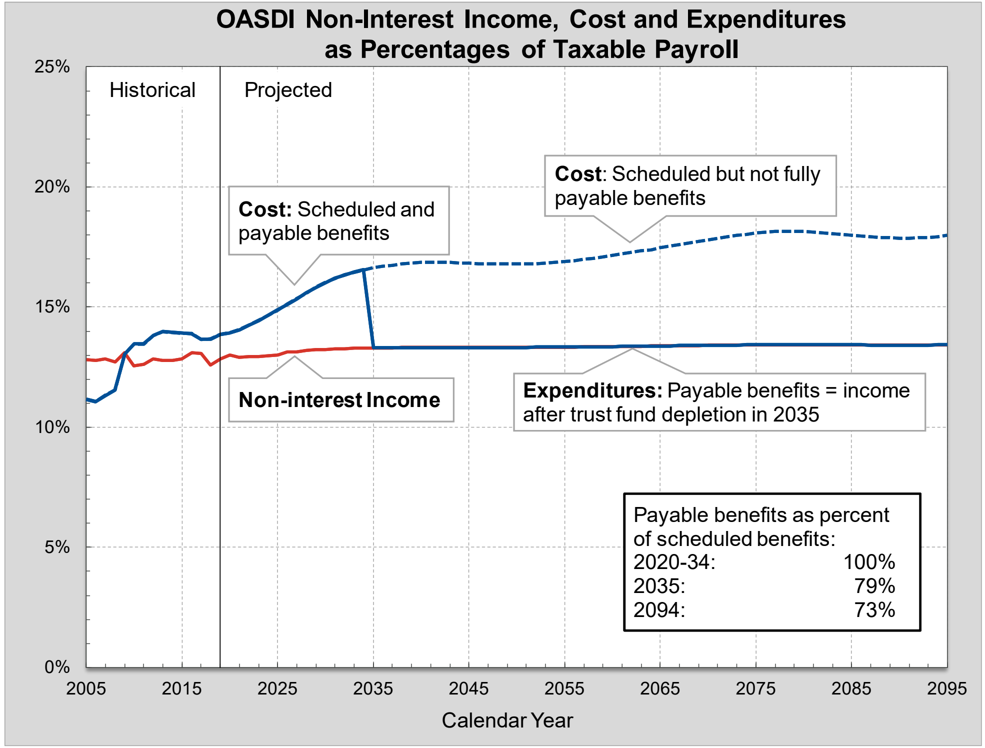
OASDI Annual Cost and Non-Interest Income as Percent of Taxable Payroll

Persistent negative annual balance starting in 2010.

79 percent of scheduled benefits still payable at trust fund reserve depletion.

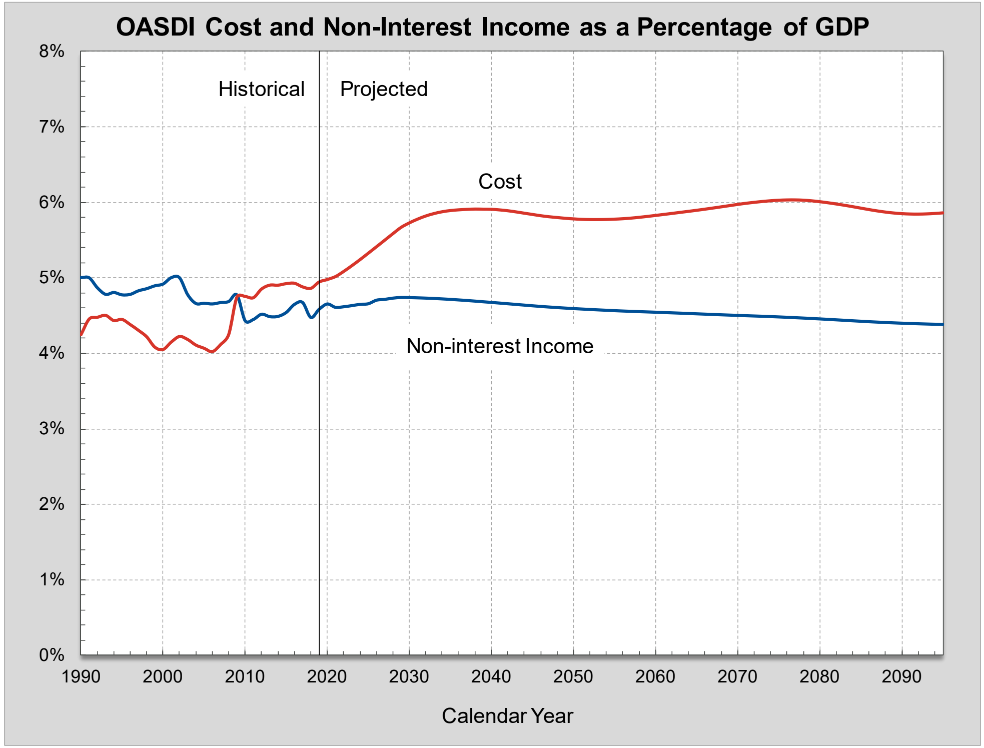
Annual Deficit in 2094:

4.51 percent of payroll – 0.36 percent larger than last year



SUSTAINABILITY: Cost as percent of GDP Under 2020 Trustees Report

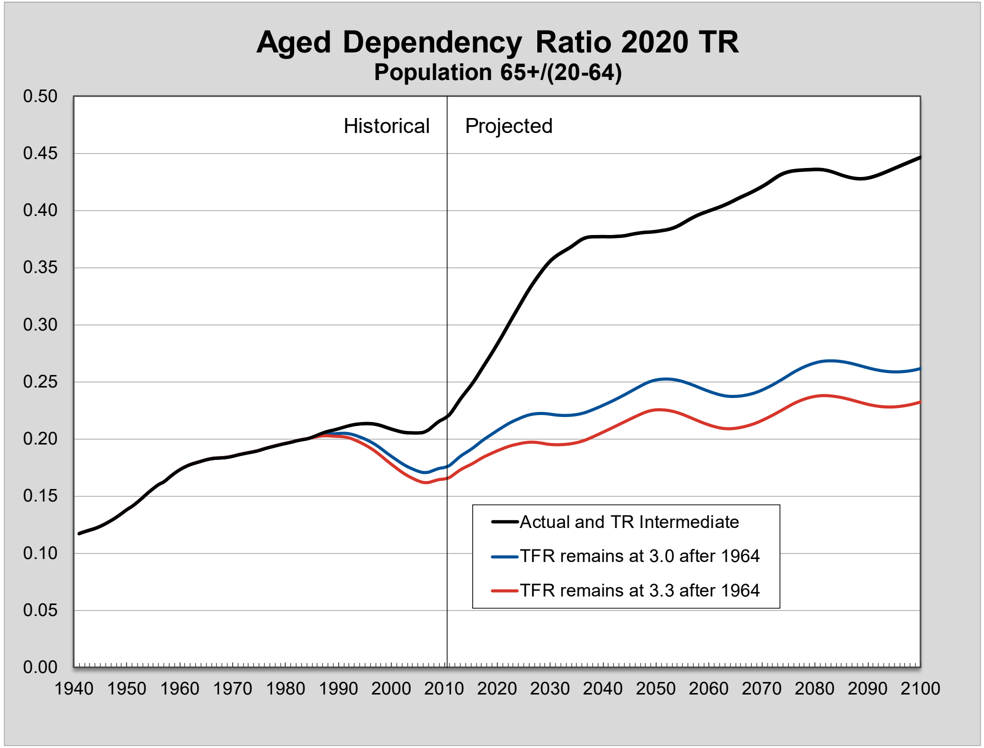
Rises from a 4.2 percent average in 1990-2008, to about 5.9 percent by 2038, then declines to 5.8 percent by 2053, and generally increases to 5.9 percent by 2094.



From the 2020 TR…

Why Cost Rises Between 2008 and 2035 as Percent of Payroll and GDP: Aging—Change in Age Distribution

Mainly due to drop in birth rates



For 2020, “Subsequent Event” for Audit

1) COVID-19 not reflected in the 2020 Trustees Report
   – Report issued in April, but assumptions were determined before pandemic was declared by the WHO in March
2) OCACT developed modifications to the 2020 TR assumptions in September/October per requirement by the auditors
3) Reflected experience and expectations at that time
4) Significant effects that caused us to indicate that evaluation of “solvency” proposals prior to the 2021 TR would be evaluated on the basis of the updated baseline
   https://www.ssa.gov/OACT/solvency/UpdatedBaseline_20201124.pdf

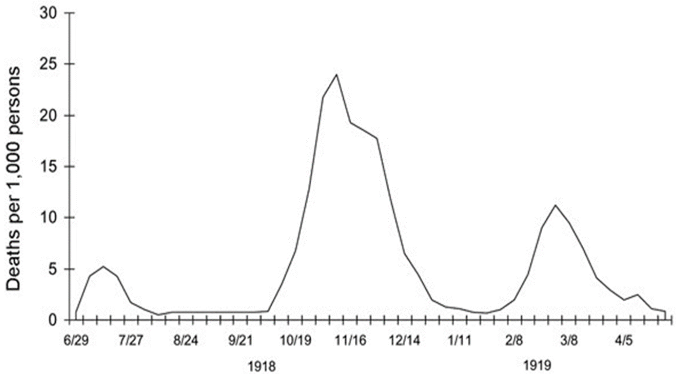
Characteristics of COVID-19

- Highly communicable
- Transmissible prior to symptoms
  - Many never show symptoms
- Immunity after infection may be limited
  - Less than 12 months?; implications for "herd immunity"
  - Potential for repeated reinfection?
- Death rate overall 0.4% to 1%: proportionate increase across ages 25 and over
- Compromise for survivors?
- Increasing mutations—vaccine or therapy? How effective?

Potential Path Going Forward

1918: worst case scenario? Will we do much better in 2021?

Figure 1. Death Rates of the Spanish Flu, June 1918 to May 1919



Source: The Spanish Flu and the Stock Market: The Pandemic of 1919 by Bryan Taylor | Feb 27, 2020 | Economics, Historical, Insights

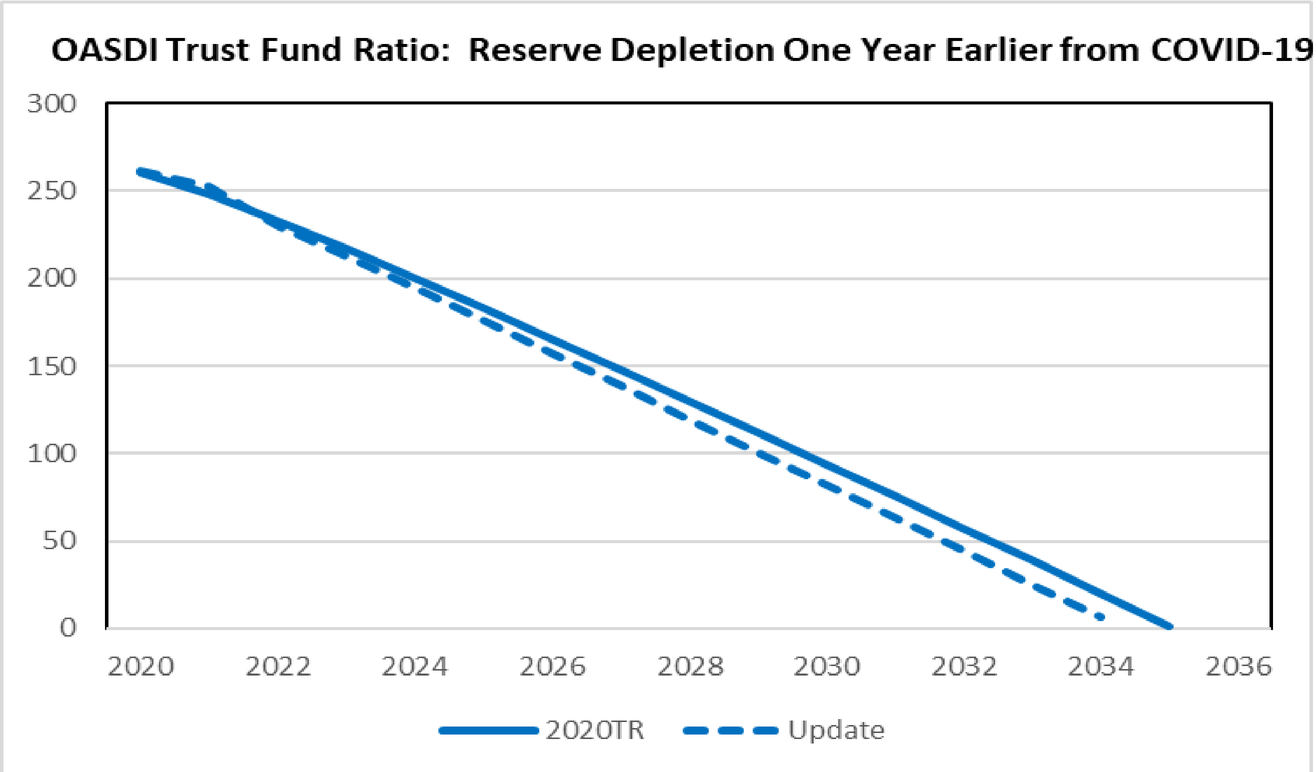
- Will we avert a substantial additional wave in 2021? If so, we may be able to return to “normal” by the end of the year

Implications of COVID-19 for Changes in OASDI

- Over the long-range period, likely minor
  - The pandemic-induced recession may be largely recovered by 2023 with little permanent effect
  - Note that Trustees Reports have incorporated the likelihood of periodic negative events
    - Specifically, Trustees Report ultimate mortality decline has been assumed to be at around 0.73 percent on average; others have persistently assumed 1.0 percent or higher in the long term with no deceleration
    - The Trustees Reports have also assumed long-term unemployment rates will be higher on average than “forecasters”, reflecting occasional downturns
- However, there are near-term considerations

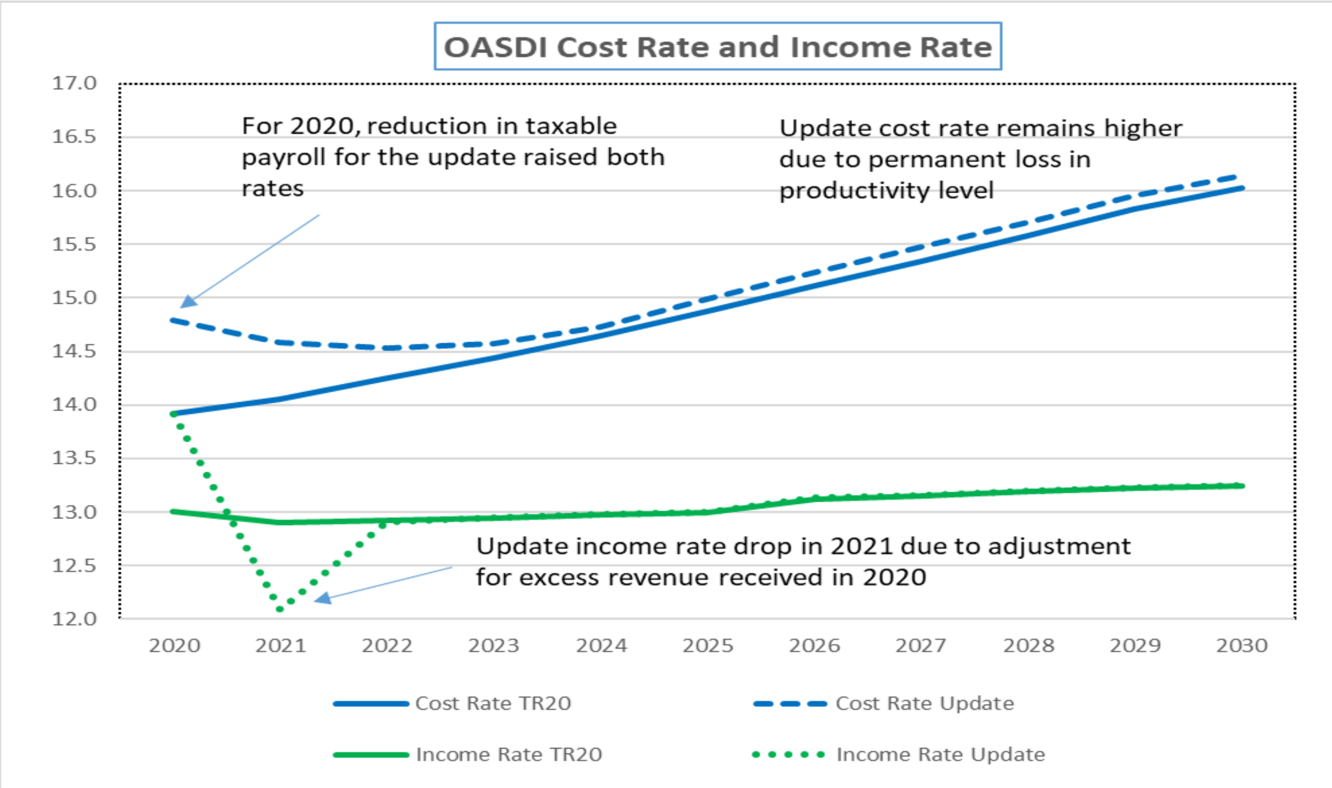
SOLVENCY: OASDI Long-Range Actuarial Deficit Increased by 0.07 Percent of Payroll

- Reserve depletion date varied from 2029 to 2042 in reports over the past 30 years
- For OASDI and OASI, 2034 and 2033, one year earlier than 2020 Trustees Report
- For DI, 2059, six years earlier than the 2020 Trustees Report



OASDI Annual Cost and Non-Interest Income as Percent of Taxable Payroll
Persistent Negative Annual Cash-Flow Balance Starting in 2010

Both rates higher for update in 2020 ONLY because of lower payroll



Average Wage Index (AWI): “Notch” and “Boost”

- The AWI declined in 2009 by 1.5%, and may decline by more for 2020
- If the AWI declines for 2020 then ALL beneficiaries becoming newly eligible in 2022 (retirees, disabled, survivors) would have benefits permanently lower than those who became eligible a year earlier (notch)
- But for those becoming eligible after 2022 who had earnings in 2020, the indexed value of their 2020 earnings will be increased (boost)
- The net effect on actuarial status would be small—***and likelihood of a substantial decrease now seems small***
- Two bills have been introduced to address this possibility for the 2020 AWI, and for the possibility of declines in the future; see testimony at https://www.ssa.gov/oact/testimony/HouseWM_20200717.pdf

How to Address Shortfalls

- Congress will need to act by 2034 to either:
  - Lower cost by about 25 percent
  - Increase revenue by about 33 percent
  - Or some combination
  - Options?

Some Ways to Lower Cost

- Lower benefits for retirees–not disabled?
  - Increase normal retirement age (lowers OASDI cost, but increases DI cost)
  - Can exempt long-career low earners (Simpson Bowles 2010)
- Lower benefits mainly for high earners?
  - Reduce PIA above some level
  - Noting that higher earners generally live longer
- Lower benefits mainly for the oldest old?
  - Reduce the COLA
  - Others say increase it with the CPI-E (based on purchases of consumers over age 62)

Some Ways to Increase Revenue

- Raise the 12.4 percent OASDI payroll tax rate?
- 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
- Tax investment income?
  - Or potentially a wealth tax?

Finally, Timing for Changes

- Historically, Congress has waited until reserve depletion is imminent
  - Given uncertainties, difficult to lower benefits or raise taxes until necessary
- Enacting “sooner” allows more options, more gradual phase in, and more advance notice
  - Best example: 17-year delay in implementing NRA increase in 1983 amendments
- OASDI reserve depletion now projected for 2034
  - One year sooner in update due to COVID-19
  - The date has varied between 2029 and 2042 over the past 30 years

For More Information Go to http://www.ssa.gov/oact/

- There you will find:
  - The 2020 and all prior OASDI Trustees Reports
  - Detailed single-year tables for recent reports
  - Our estimates for comprehensive proposals
  - Actuarial notes; including replacement rates
  - Actuarial studies; including stochastic
  - Extensive databases
  - Congressional testimonies
  - Presentations by OCACT employees