

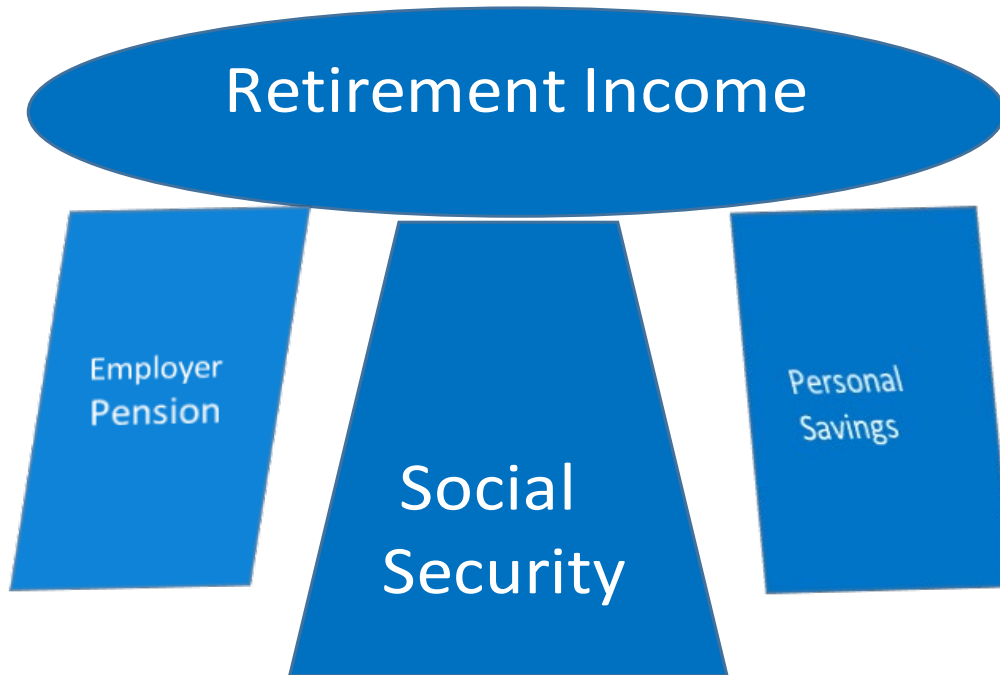
Social Security Financing and Status: Implications of COVID-19

*Steve Goss
Chief Actuary
Social Security Administration*

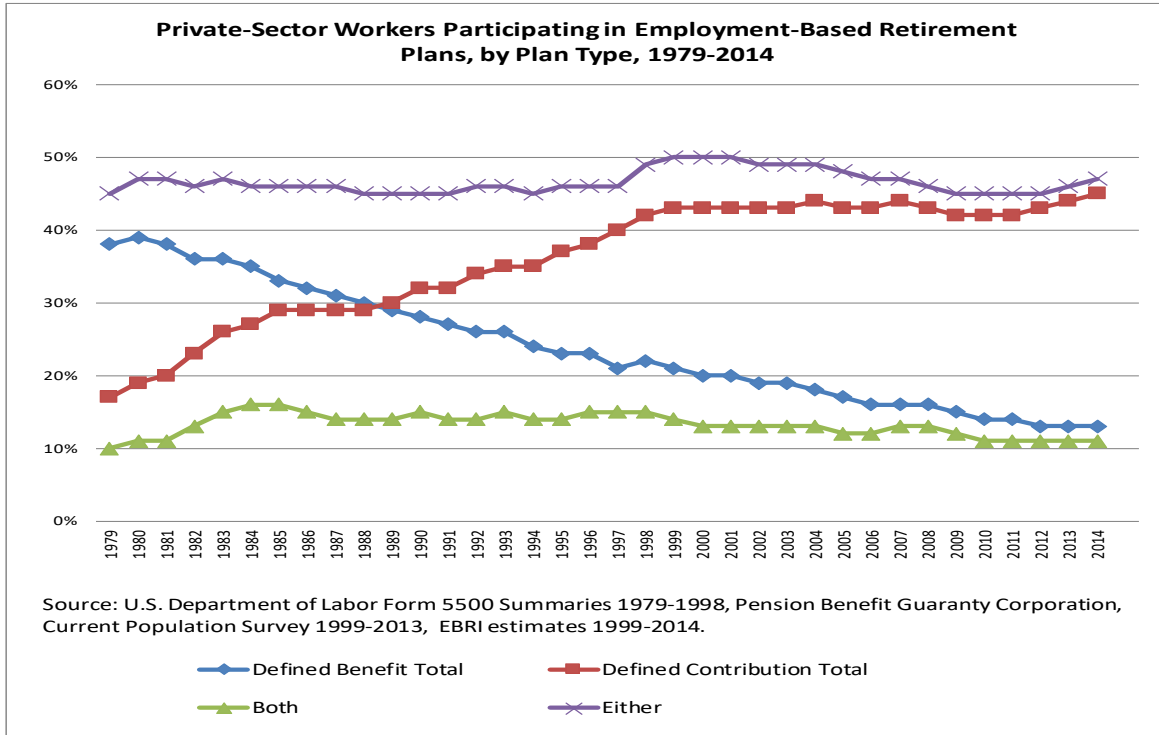
*DePaul University
March 2, 2021*

Three Legged Stool: Basis for Retirement Planning

Common wisdom—aim for 75-80 percent replacement rate



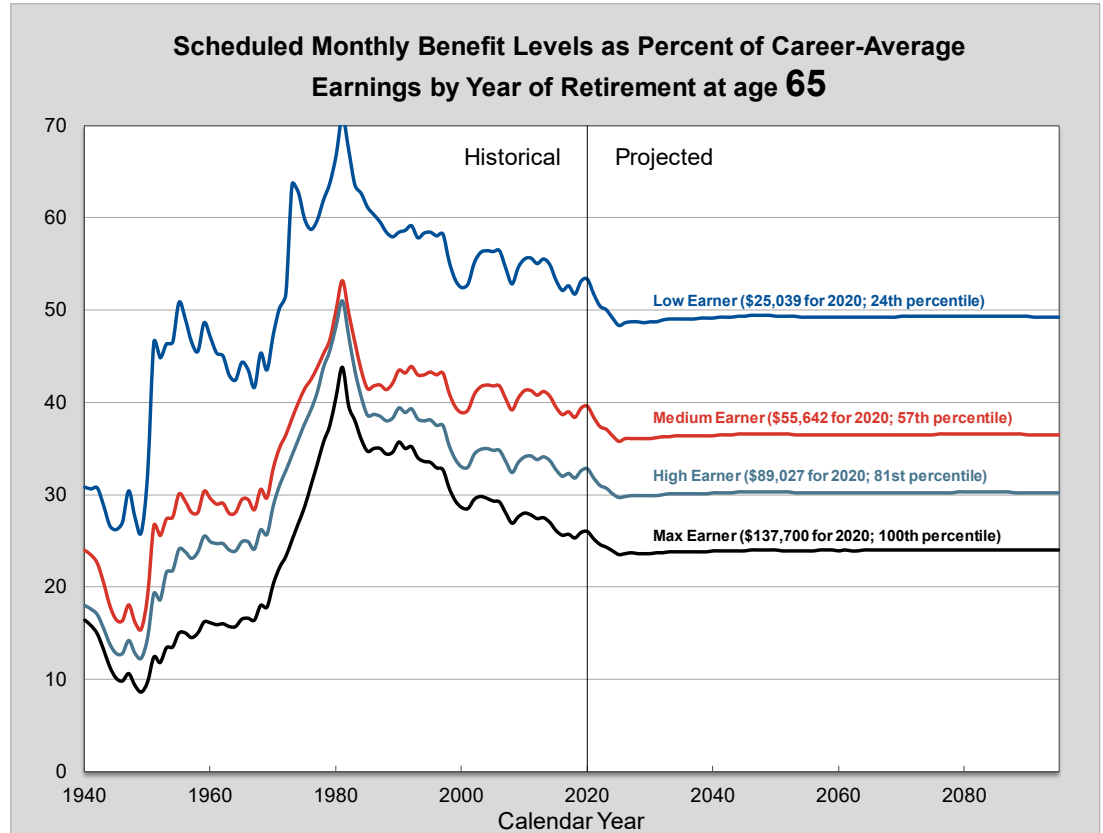
Defined Benefit Plans Replaced by DC Plans: And Lump Sum Options Increasing for DB Plans



Social Security: What Does It Provide?

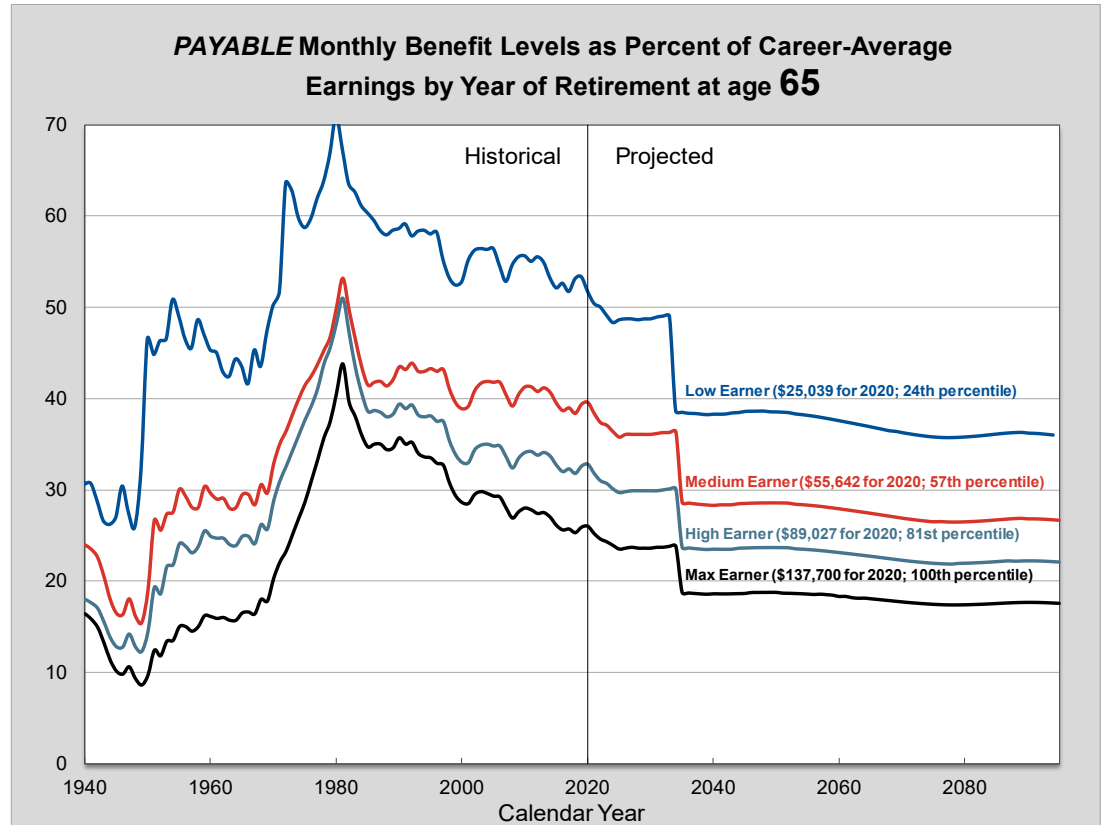
- Retirement and survivor monthly benefits started in 1940
 - *Never missed a payment!*
- Eligibility age lowered from 65 to 62 in 1957 for women, 1962 for men
 - Full retirement age rises from 65 to 67 by 2022
- Disability benefits started in 1957
- ***Benefits rise with average wage across generations—but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

WHO PAYS?

- 95 percent of workers contribute—177 million in 2020
 - 12.4% of earnings up to \$142,800 in 2021 (6 percent of workers earn more)
 - 25% of state and local government employees are not in Social Security

WHO BENEFITS?

- 65 million retirement, survivor, disability beneficiaries in 2020
 - 46 million retirees, plus another 3 million of their spouses and children
 - Plus 6 million survivors
 - Plus 9 million disabled workers and their dependents
- And 156 million workers are insured against disability or death

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)*

First, Social Security Actuarial Status under 2020 Trustees Report

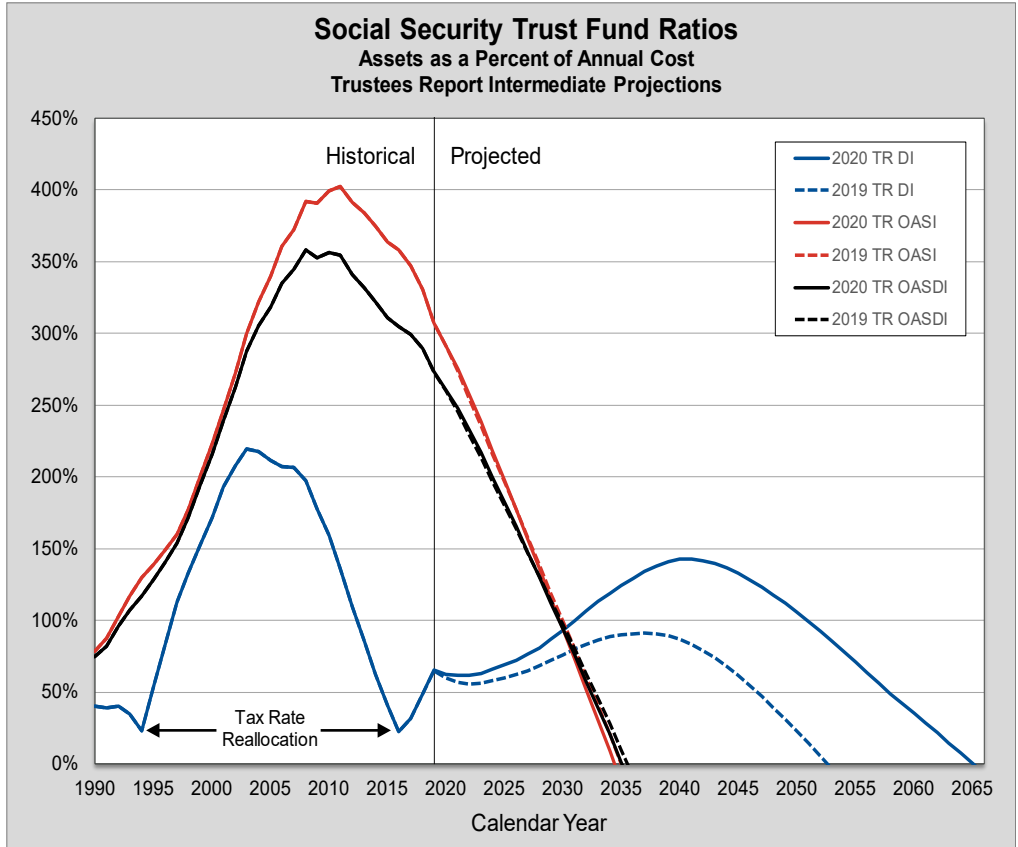
*DEVELOPED PRIOR TO RECOGNITION OF THE
PANDEMIC AND RECESSION*

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.

Due largely to low recent and near-term disability applications and awards, and an assumed lower ultimate disability incidence rate.



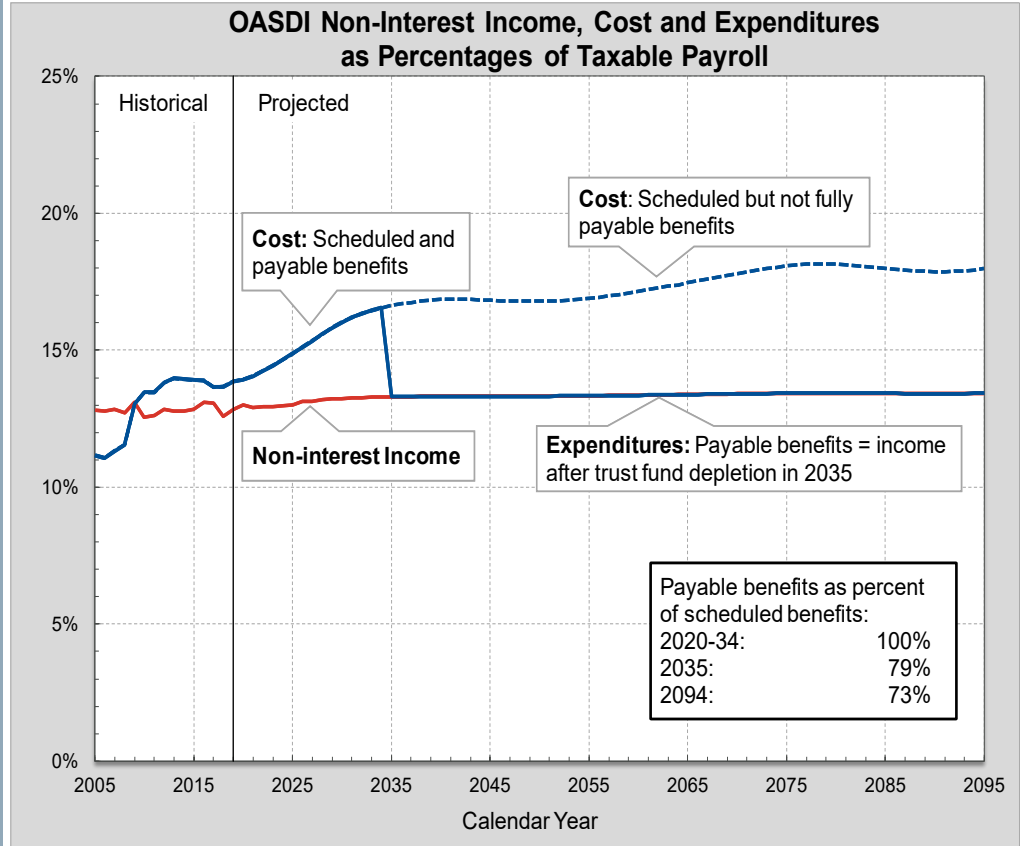
OASDI Annual Cost and Non-Interest Income as Percent of Taxable Payroll

Persistent negative annual balance starting in 2010.

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

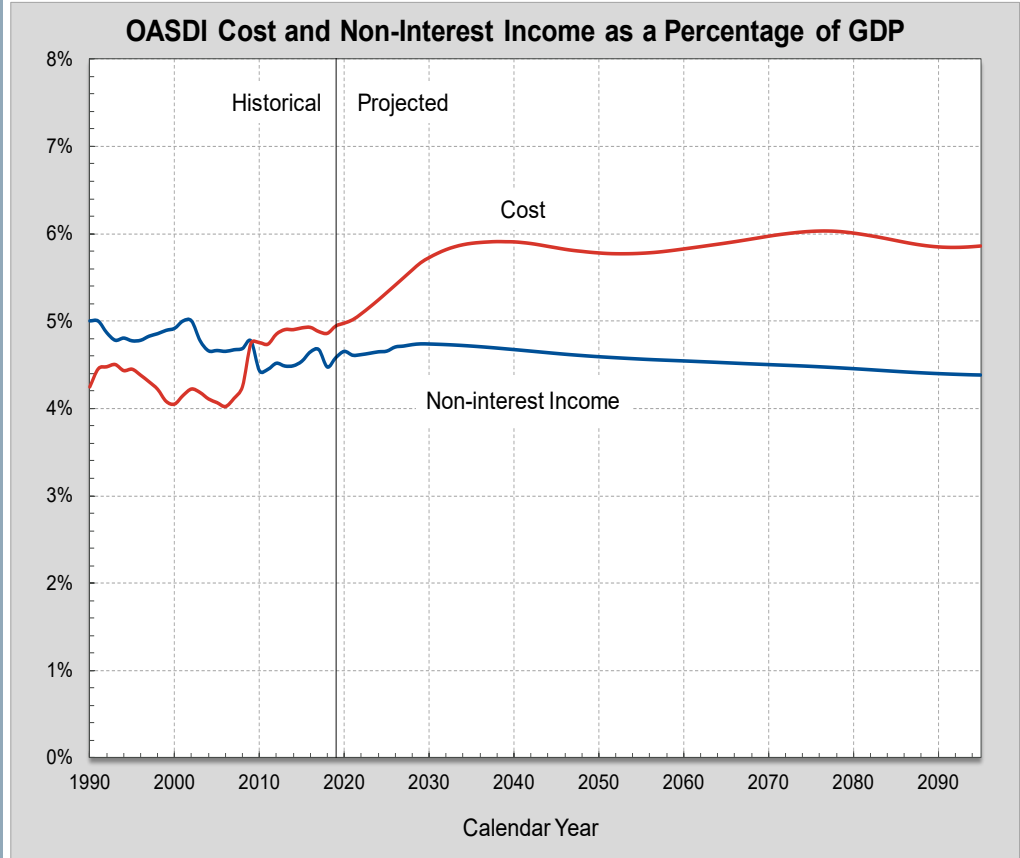
Annual Deficit in 2094:

4.51 percent of payroll –
0.36 percent larger than last year



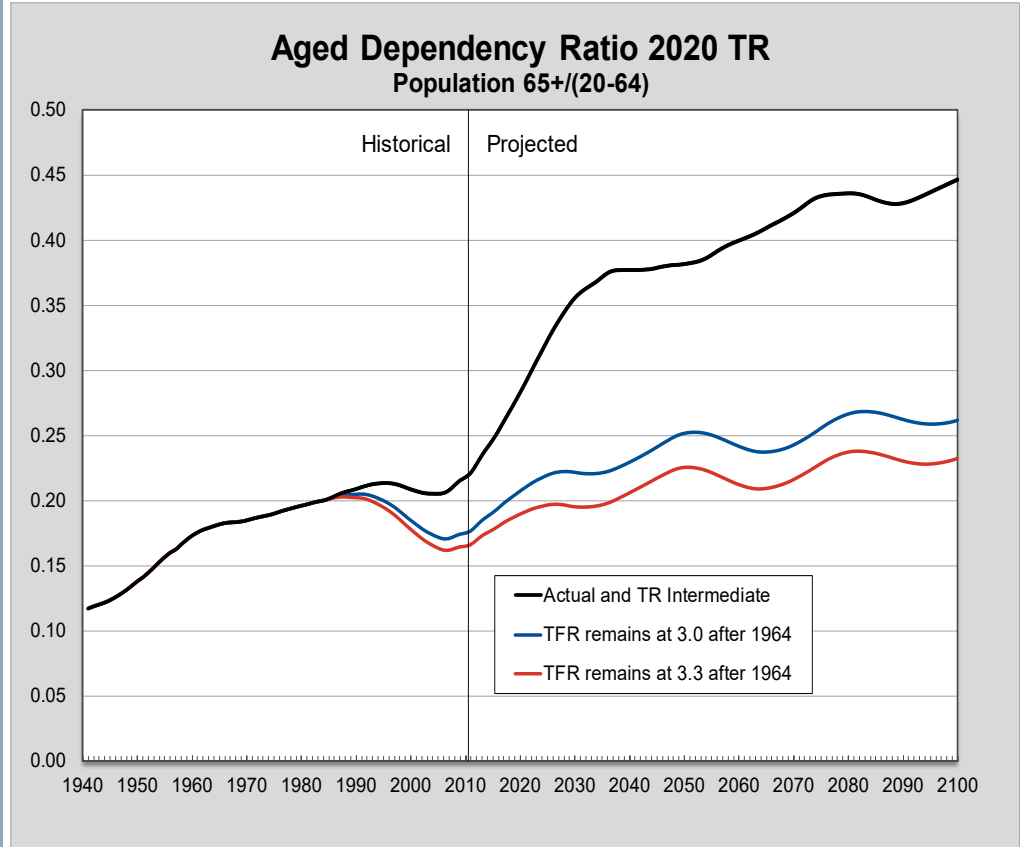
SUSTAINABILITY: Cost as percent of GDP

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.



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



COVID-19 Effects on Social Security Actuarial Status

*UPDATE TO 2020 TRUSTEES REPORT :
“SUBSEQUENT EVENT” FOR AUDIT*

For 2020, Subsequent Event Unprecedented

- 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

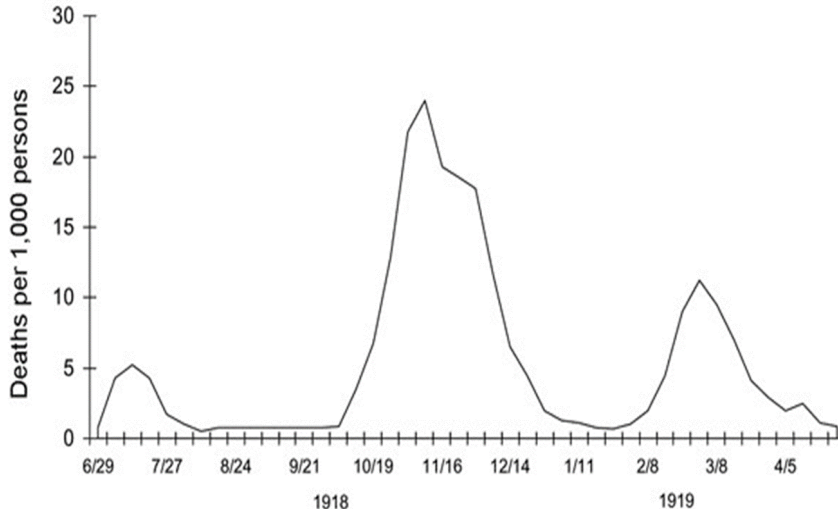
Characteristics of COVID-19

- 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



- 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

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

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

2020 Subsequent Event Changes: Demographic

Assumption/measure	2020	2021	2022	2023	2024	2025
Fertility (TFR)						
2020 TR	1.69	1.70	1.73	1.77	1.82	1.87
Subsequent event	<u>1.69</u>	<u>1.57</u>	<u>1.66</u>	<u>1.83</u>	<u>1.88</u>	<u>1.93</u>
Difference	0.00	-0.13	-0.07	0.06	0.06	0.06
Mortality (age-sex-adjusted central death rate)						
2020 TR	790.4	784.9	779.2	773.2	767.1	760.9
Subsequent event	<u>885.2</u>	<u>832.0</u>	<u>794.8</u>	<u>773.2</u>	<u>767.1</u>	<u>760.9</u>
Difference	94.8	47.1	15.6	0.0	0.0	0.0
Net LPR immigration (levels in thousands)						
2020 TR	788	788	788	788	788	788
Subsequent event	<u>428</u>	<u>428</u>	<u>1,028</u>	<u>1,028</u>	<u>1,028</u>	<u>788</u>
Difference	-360	-360	240	240	240	0
Net other-than-LPR immigration (levels in thousands)						
2020 TR	631	614	597	586	576	567
Subsequent event	<u>-449</u>	<u>-442</u>	<u>1,366</u>	<u>1,339</u>	<u>1,312</u>	<u>564</u>
Difference	-1,080	-1,056	769	753	736	-3

2020 Subsequent Event Changes: Disability

Assumption/measure	2020	2021	2022	2023	2024	2025
Disability incidence (age-sex-adjusted rate per thousand exposed)						
2020 TR	4.34	4.18	4.25	4.53	4.77	4.80
Subsequent event	<u>3.87</u>	<u>4.52</u>	<u>4.53</u>	<u>4.57</u>	<u>4.70</u>	<u>4.81</u>
Difference	-0.47	0.34	0.28	0.04	-0.07	0.01
Disability termination (age-sex-adjusted rate per thousand beneficiaries)						
2020 TR	41.31	39.16	38.56	38.04	37.51	36.90
Subsequent event	<u>42.79</u>	<u>40.64</u>	<u>39.05</u>	<u>38.04</u>	<u>37.51</u>	<u>36.90</u>
Difference	1.48	1.48	0.49	0.00	0.00	0.00

2020 Subsequent Event Changes: Economic

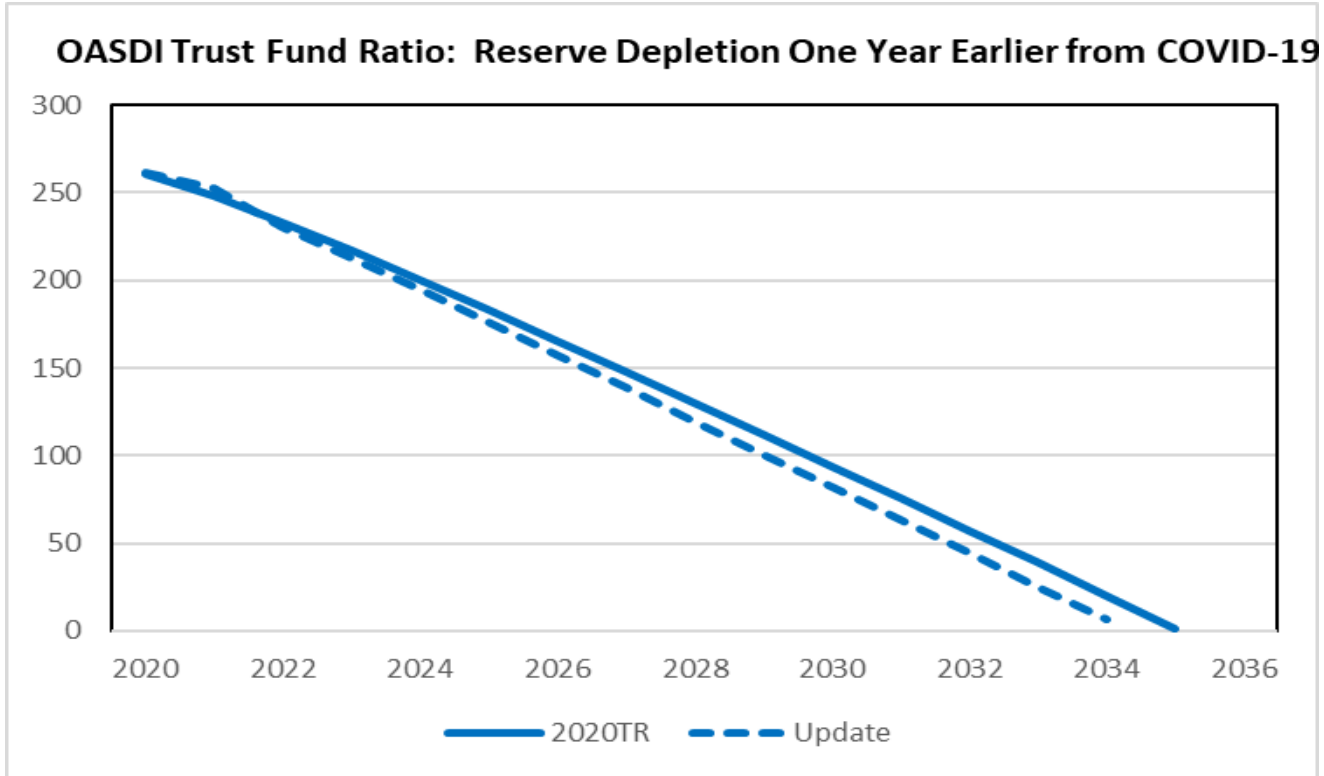
Assumption/measure	2020	2021	2022	2023	2024	2025
Productivity, total US economy (annual percentage change)						
2020 TR	1.26	1.99	1.86	1.67	1.62	1.63
Subsequent event	<u>3.20</u>	<u>1.77</u>	<u>0.76</u>	<u>0.67</u>	<u>1.22</u>	<u>1.46</u>
Difference	1.94	-0.22	-1.10	-1.00	-0.40	-0.17
Average wage in covered employment (annual percentage change)						
2020 TR	3.50	4.44	4.09	3.83	3.78	3.81
Subsequent event	<u>-4.33</u>	<u>8.23</u>	<u>5.99</u>	<u>3.17</u>	<u>3.45</u>	<u>3.66</u>
Difference	-7.83	3.79	1.90	-0.66	-0.33	-0.15
CPI-W (annual percentage change)						
2020 TR	2.27	2.43	2.40	2.40	2.40	2.40
Subsequent event	<u>1.23</u>	<u>1.65</u>	<u>2.05</u>	<u>2.36</u>	<u>2.40</u>	<u>2.40</u>
Difference	-1.04	-0.78	-0.35	-0.04	0.00	0.00
Real-wage differential (percent)						
2020 TR	1.23	2.01	1.69	1.43	1.38	1.41
Subsequent event	<u>-5.56</u>	<u>6.58</u>	<u>3.93</u>	<u>0.80</u>	<u>1.05</u>	<u>1.26</u>
Difference	-6.79	4.57	2.24	-0.63	-0.33	-0.15
Unemployment rate (percent)						
2020 TR	3.8	4.2	4.6	5.0	5.0	5.0
Subsequent event	<u>8.3</u>	<u>6.5</u>	<u>5.2</u>	<u>5.0</u>	<u>5.0</u>	<u>5.0</u>
Difference	4.5	2.3	0.6	0.0	0.0	0.0

2020 Subsequent Event Changes: Economic, cont.

Assumption/measure	2020	2021	2022	2023	2024	2025
Total employment, military and civilian (annual percentage change)						
2020 TR	0.9	0.3	0.3	0.4	0.6	0.5
Subsequent event	<u>-6.4</u>	<u>3.0</u>	<u>3.2</u>	<u>2.0</u>	<u>1.0</u>	<u>0.7</u>
Difference	-7.3	2.7	2.9	1.6	0.4	0.2
Real GDP (annual percentage change)						
2020 TR	2.1	2.3	2.2	2.1	2.1	2.1
Subsequent event	<u>-3.5</u>	<u>4.7</u>	<u>3.9</u>	<u>2.7</u>	<u>2.1</u>	<u>2.1</u>
Difference	-5.6	2.4	1.7	0.6	0.0	0.0
Trust fund new-issue real interest rate (percent)						
2020 TR	0.0	-0.1	0.5	0.9	1.2	1.6
Subsequent event	<u>1.0</u>	<u>-0.6</u>	<u>-0.8</u>	<u>-0.7</u>	<u>-0.2</u>	<u>0.4</u>
Difference	1.0	-0.5	-1.3	-1.6	-1.4	-1.2
Average wage index						
2020 TR	55,641.66	58,112.16	60,499.07	62,823.60	65,207.33	67,697.32
Percent change from prior year	3.51	4.44	4.11	3.84	3.79	3.82
Subsequent event	51,603.14	55,788.36	59,076.46	60,918.68	62,996.21	65,290.06
Percent change from prior year	-4.01	8.11	5.89	3.12	3.41	3.64

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

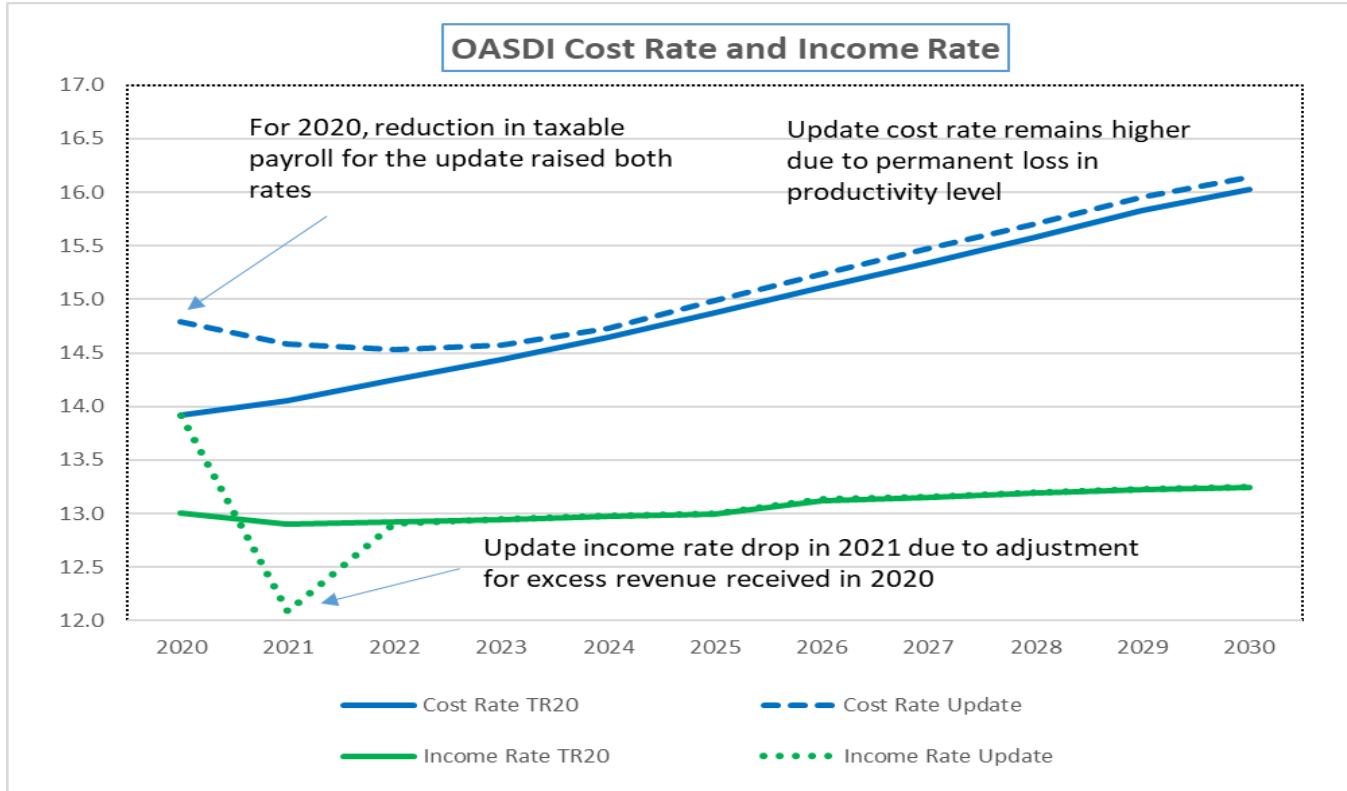
- Reserve depletion date varied from 2029 to 2042 in reports over the past 30 years
- For OASDI and OASI, 2034 and 2033, one year earlier than 2020 Trustees Report
- For DI, 2059, six years earlier than the 2020 Trustees Report



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

For More Information Go To

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

- There you will find:
 - All OASDI Trustees Reports: 1941-2019
 - 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
 - Extensive databases
 - Congressional testimonies
 - Presentations by OCACT employees