

THE 2020 ANNUAL REPORT OF THE BOARD OF
TRUSTEES OF THE FEDERAL OLD-AGE AND SURVIVORS
INSURANCE AND FEDERAL DISABILITY INSURANCE
TRUST FUNDS

COMMUNICATION

FROM

THE BOARD OF TRUSTEES, FEDERAL OLD-AGE AND
SURVIVORS INSURANCE AND FEDERAL DISABILITY
INSURANCE TRUST FUNDS

TRANSMITTING

THE 2020 ANNUAL REPORT OF THE BOARD OF TRUSTEES OF THE
FEDERAL OLD-AGE AND SURVIVORS INSURANCE AND FEDERAL
DISABILITY INSURANCE TRUST FUNDS



2. Estimates as a Percentage of Gross Domestic Product

This section presents long-range projections of the operations of the combined Old-Age and Survivors Insurance and Disability Insurance (OASI and DI) Trust Funds and of the Hospital Insurance (HI) Trust Fund, expressed as a percentage of gross domestic product (GDP). While expressing fund operations as a percentage of taxable payroll is a very useful approach for assessing the financial status of the programs (see section IV.B.1), expressing them as a percentage of the total value of goods and services produced in the United States provides an additional perspective.

Table VI.G4 shows non-interest income, total cost, and the resulting balance of the combined OASI and DI Trust Funds, of the HI Trust Fund, and of the combined OASI, DI, and HI Trust Funds, expressed as percentages of GDP on the basis of each of the three alternative sets of assumptions. Table VI.G4 also contains estimates of GDP. For OASDI, non-interest income consists of payroll tax contributions, proceeds from taxation of scheduled OASDI benefits, and any reimbursements from the General Fund of the Treasury. Cost consists of scheduled benefits, administrative expenses, financial interchange with the Railroad Retirement program, and payments for vocational rehabilitation services for disabled beneficiaries. For HI, non-interest income consists of payroll tax contributions (including contributions from railroad employment), up to an additional 0.9 percent tax on earned income for relatively high earners, proceeds from taxation of scheduled OASDI benefits, premium revenues, monies from fraud and abuse control activities, and any reimbursements from the General Fund of the Treasury. Cost consists of outlays (benefits and administrative expenses) for beneficiaries. The Trustees show income and cost estimates generally on a cash basis for the OASDI program¹ and on an incurred basis for the HI program.

The Trustees project the OASDI annual balance (non-interest income less cost) as a percentage of GDP to be negative throughout the projection period under the intermediate and high-cost assumptions. Under the low-cost assumptions, the OASDI annual deficit as a percentage of GDP decreases through 2024, increases in 2025, and then decreases in 2026, in part because of a permanent level shift upward in taxation of benefits income due to the expiration of the personal income tax provisions in Public Law 115-97, the Tax Cuts and Jobs Act. After 2026, deficits increase to a peak in 2034 and

¹ OASDI benefits paid for entitlement for a particular month are generally paid in the succeeding month. There are two primary exceptions to this general rule. First, payments can occur with a greater delay when a benefit award is made after the month of initial benefit entitlement. At the time of benefit award, benefits owed for months of prior entitlement are then also paid to the beneficiary. For the projections in this report, such retroactive payments are included in the period where they are paid (at time of award). Second, when benefit payments scheduled for January 3 are paid on the prior December 31, because January 3 falls on a Sunday, such payments are shown in this report for the period they were scheduled to be paid.

Appendices

then decrease through 2055. After 2055, the annual deficits increase through 2072 and then decrease through 2083 before becoming positive for 2084 and later. Under the intermediate assumptions, the annual deficits increase through 2041, decrease slightly through 2051, and then generally increase thereafter. Under the high-cost assumptions, annual deficits mostly increase throughout the projection period.

The Trustees project that the HI annual balance as a percentage of GDP will be negative in 2020, and then positive and mostly increasing throughout the rest of the projection period, under the low-cost assumptions. Under the intermediate and the high-cost assumptions, the HI annual balance is negative for all years of the projection period. Under the intermediate assumptions, annual deficits generally increase through 2045, and then decline thereafter. Under the high-cost assumptions, annual deficits reach a peak in 2068 and decline slowly thereafter.

The combined OASDI and HI annual balance as a percentage of GDP is negative throughout the projection period under both the intermediate and high-cost assumptions. Under the low-cost assumptions, the combined OASDI and HI annual balance is negative through 2040, and then positive and mostly rising thereafter. Under the intermediate assumptions, the combined OASDI and HI annual deficits increase from 2020 through 2043, decrease through 2054, increase through 2077, and then mostly decline thereafter, reaching 1.68 percent of GDP by 2094. Under the high-cost assumptions, combined annual deficits rise to a peak of 6.02 percent in 2080 and decrease thereafter.

By 2094, the combined OASDI and HI annual balances as percentages of GDP range from a positive annual balance of 0.97 percent for the low-cost assumptions to an annual deficit of 5.83 percent for the high-cost assumptions. Annual balances differ by a much smaller amount for the tenth projection year, 2029, ranging from an annual deficit of 0.17 percent for the low-cost assumptions to an annual deficit of 2.28 percent for the high-cost assumptions.

The summarized long-range (75-year) actuarial balance as a percentage of GDP for the combined OASDI and HI programs varies among the three alternatives by a relatively large amount, from a positive actuarial balance of 0.50 percent under the low-cost assumptions to an actuarial deficit of 4.21 percent under the high-cost assumptions. The 25-year summarized actuarial balance varies by a smaller amount, from a positive actuarial balance of 0.09 percent to an actuarial deficit of 2.49 percent. Summarized rates are calculated on a present-value basis. They include the trust fund reserve balances on January 1, 2020 and the cost of reaching a target trust fund level equal to

OASDI and HI: Percent of GDP

100 percent of the following year's annual cost at the end of the period. (See section IV.B.4 for further explanation.)

Table VI.G4.—OASDI and HI Annual and Summarized Income, Cost, and Balance as a Percentage of GDP, Calendar Years 2020-2095

Calendar year	Percentage of GDP									GDP in dollars (billions)
	OASDI			HI			Combined			
	Income ^a	Cost ^b	Balance ^b	Income ^a	Cost	Balance	Income ^a	Cost ^b	Balance ^b	
Intermediate:										
2020	4.65	4.98	-0.33	1.50	1.57	-0.07	6.15	6.55	-0.40	\$22,341
2021	4.61	5.02	-0.41	1.51	1.60	-0.09	6.12	6.62	-0.50	23,342
2022	4.61	5.08	-0.47	1.52	1.63	-.11	6.14	6.72	-.58	24,344
2023	4.63	5.16	-.53	1.53	1.67	-.14	6.16	6.83	-.67	25,369
2024	4.64	5.24	-.60	1.54	1.71	-.16	6.19	6.95	-.76	26,441
2025	4.65	5.33	-.67	1.55	1.74	-.18	6.21	7.07	-.86	27,552
2026	4.70	5.41	-.71	1.59	1.77	-.18	6.29	7.18	-.89	28,709
2027	4.71	5.50	-.79	1.61	1.80	-.19	6.32	7.30	-.98	29,917
2028	4.73	5.59	-.86	1.62	1.83	-.21	6.35	7.41	-1.07	31,179
2029	4.74	5.67	-.93	1.63	1.85	-.22	6.37	7.52	-1.15	32,475
2030	4.73	5.73	-.99	1.64	1.92	-.28	6.37	7.65	-1.28	33,806
2035	4.71	5.89	-1.18	1.66	2.04	-.37	6.38	7.93	-1.55	41,307
2040	4.67	5.91	-1.24	1.68	2.11	-.44	6.35	8.02	-1.67	50,291
2045	4.63	5.84	-1.21	1.69	2.16	-.47	6.31	8.00	-1.68	61,380
2050	4.59	5.78	-1.19	1.70	2.14	-.45	6.28	7.92	-1.64	75,119
2055	4.56	5.78	-1.22	1.71	2.10	-.39	6.27	7.88	-1.61	91,939
2060	4.54	5.83	-1.29	1.73	2.08	-.35	6.27	7.90	-1.63	112,240
2065	4.52	5.90	-1.38	1.75	2.07	-.32	6.27	7.97	-1.70	136,656
2070	4.50	5.97	-1.48	1.77	2.08	-.32	6.27	8.06	-1.79	166,204
2075	4.48	6.03	-1.55	1.79	2.10	-.31	6.26	8.13	-1.86	202,410
2080	4.45	6.01	-1.56	1.80	2.09	-.30	6.25	8.10	-1.86	247,188
2085	4.42	5.92	-1.50	1.80	2.07	-.27	6.22	7.99	-1.77	302,272
2090	4.39	5.85	-1.46	1.80	2.04	-.23	6.20	7.89	-1.69	369,382
2095	4.38	5.86	-1.48	1.81	2.01	-.20	6.19	7.87	-1.68	450,425
Summarized rates: ^c										
25-year:										
2020-44	5.17	5.88	-.72	1.66	2.00	-.34	6.82	7.88	-1.06	
50-year:										
2020-69	4.88	5.84	-.96	1.69	2.04	-.35	6.57	7.88	-1.31	
75-year:										
2020-94	4.76	5.86	-1.10	1.72	2.05	-.33	6.48	7.91	-1.43	
Low-cost:										
2020	4.62	4.89	-.27	1.50	1.52	-.02	6.12	6.41	-.29	22,716
2021	4.60	4.87	-.27	1.51	1.50	.01	6.11	6.37	-.26	24,162
2022	4.62	4.87	-.25	1.52	1.50	.02	6.14	6.37	-.23	25,603
2023	4.64	4.89	-.25	1.53	1.51	.02	6.17	6.40	-.23	27,045
2024	4.67	4.92	-.25	1.54	1.51	.03	6.20	6.42	-.22	28,565
2025	4.68	4.95	-.26	1.55	1.51	.04	6.23	6.45	-.22	30,153
2026	4.74	4.98	-.24	1.58	1.50	.08	6.32	6.48	-.16	31,804
2027	4.76	5.02	-.26	1.59	1.50	.09	6.35	6.52	-.17	33,538
2028	4.78	5.06	-.28	1.60	1.50	.11	6.39	6.55	-.17	35,356
2029	4.80	5.10	-.29	1.61	1.48	.13	6.42	6.58	-.17	37,255
2030	4.80	5.12	-.32	1.62	1.51	.11	6.42	6.63	-.21	39,249
2035	4.79	5.14	-.35	1.65	1.46	.20	6.44	6.60	-.16	50,909
2040	4.76	5.06	-.31	1.68	1.38	.30	6.44	6.44	^d	65,841
2045	4.73	4.92	-.20	1.70	1.28	.42	6.42	6.20	.22	85,611
2050	4.70	4.81	-.11	1.72	1.17	.55	6.42	5.98	.45	111,916
2055	4.69	4.77	-.08	1.75	1.08	.67	6.44	5.85	.59	146,363
2060	4.69	4.79	-.09	1.78	1.02	.76	6.47	5.80	.66	190,854
2065	4.69	4.81	-.12	1.80	1.00	.81	6.49	5.81	.68	248,184
2070	4.69	4.84	-.15	1.83	1.00	.83	6.51	5.84	.68	322,704
2075	4.68	4.83	-.15	1.85	1.01	.84	6.53	5.85	.69	420,844
2080	4.68	4.76	-.08	1.86	1.02	.85	6.54	5.78	.76	550,991
2085	4.67	4.64	.03	1.87	1.01	.86	6.54	5.65	.89	722,271
2090	4.66	4.57	.10	1.88	1.00	.88	6.55	5.57	.98	944,908
2095	4.67	4.62	.06	1.90	.96	.94	6.57	5.57	1.00	1,232,021

Appendices

Table VI.G4.—OASDI and HI Annual and Summarized Income, Cost, and Balance as a Percentage of GDP, Calendar Years 2020-2095 (Cont.)

Calendar year	Percentage of GDP									GDP in dollars (billions)
	OASDI			HI			Combined			
	Income ^a	Cost ^b	Balance ^b	Income ^a	Cost	Balance	Income ^a	Cost ^b	Balance ^b	
Low-cost (Cont.):										
Summarized rates: ^c										
25-year:										
2020-44 ..	5.19	5.24	-0.05	1.65	1.50	0.15	6.84	6.74	0.09	
50-year:										
2020-69 ..	4.95	5.02	-.07	1.70	1.29	.41	6.66	6.31	.34	
75-year:										
2020-94 ..	4.87	4.92	-.05	1.75	1.20	.55	6.62	6.12	.50	
High-cost:										
2020	4.69	5.13	-.44	1.50	1.64	-.14	6.20	6.77	-.57	\$21,713
2021	4.61	5.36	-.76	1.50	1.72	-.22	6.11	7.09	-.97	21,706
2022	4.60	5.46	-.86	1.51	1.78	-.27	6.11	7.24	-1.13	22,402
2023	4.58	5.56	-.98	1.53	1.86	-.33	6.11	7.42	-1.31	23,145
2024	4.59	5.68	-1.09	1.54	1.94	-.39	6.14	7.62	-1.48	23,900
2025	4.60	5.80	-1.20	1.56	2.01	-.46	6.16	7.82	-1.66	24,689
2026	4.65	5.92	-1.27	1.60	2.09	-.49	6.25	8.01	-1.76	25,540
2027	4.65	6.03	-1.38	1.62	2.17	-.55	6.27	8.20	-1.93	26,420
2028	4.67	6.15	-1.48	1.64	2.25	-.61	6.31	8.40	-2.10	27,312
2029	4.67	6.28	-1.61	1.65	2.32	-.67	6.32	8.60	-2.28	28,154
2030	4.67	6.38	-1.71	1.66	2.46	-.80	6.33	8.84	-2.51	28,957
2035	4.64	6.73	-2.09	1.68	2.86	-1.18	6.32	9.58	-3.26	33,323
2040	4.59	6.88	-2.28	1.69	3.26	-1.56	6.28	10.13	-3.85	38,206
2045	4.54	6.94	-2.40	1.70	3.65	-1.95	6.23	10.59	-4.35	43,766
2050	4.49	6.98	-2.49	1.70	3.94	-2.24	6.19	10.92	-4.73	50,106
2055	4.45	7.06	-2.61	1.70	4.12	-2.42	6.15	11.18	-5.03	57,319
2060	4.41	7.18	-2.77	1.71	4.24	-2.52	6.13	11.42	-5.29	65,399
2065	4.38	7.33	-2.95	1.72	4.31	-2.59	6.10	11.64	-5.54	74,419
2070	4.34	7.49	-3.15	1.73	4.34	-2.61	6.08	11.84	-5.76	84,497
2075	4.31	7.65	-3.34	1.74	4.35	-2.60	6.06	12.00	-5.94	95,885
2080	4.27	7.73	-3.46	1.75	4.31	-2.56	6.02	12.04	-6.02	108,941
2085	4.23	7.71	-3.49	1.75	4.24	-2.50	5.97	11.96	-5.98	123,915
2090	4.18	7.66	-3.48	1.75	4.16	-2.41	5.93	11.81	-5.89	140,993
2095	4.15	7.63	-3.49	1.75	4.22	-2.47	5.89	11.85	-5.96	160,299
Summarized rates: ^c										
25-year:										
2020-44 ..	5.16	6.61	-1.45	1.67	2.71	-1.04	6.83	9.32	-2.49	
50-year:										
2020-69 ..	4.83	6.83	-1.99	1.69	3.33	-1.65	6.52	10.16	-3.64	
75-year:										
2020-94 ..	4.68	7.03	-2.34	1.70	3.57	-1.86	6.39	10.59	-4.21	

^a Income for individual years excludes interest on the trust funds. Interest is implicit in all summarized values.
^b OASDI benefit payments which were scheduled to be paid on January 3 for some past and future years were actually paid on December 31 as required by the statutory provision for early delivery of benefit payments when the normal payment delivery date is a Saturday, Sunday, or legal public holiday. For comparability with the values for historical years and the projections in this report, all trust fund operations and asset reserves reflect the 12 months of benefits scheduled for payment each year.
^c Summarized rates are calculated on a present-value basis. They include the value of the trust funds on January 1, 2020 and the cost of reaching a target trust fund level equal to 100 percent of annual cost at the end of the period.
^d Between -0.005 and 0 percent of GDP.

Notes:
1. The Trustees show income and cost estimates generally on a cash basis for the OASDI program and on an incurred basis for the HI program.
2. Totals do not necessarily equal the sums of rounded components.