Social Security's financial outlook: The 2020 update in perspective

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SOCIAL SECURITY'S FINANCIAL OUTLOOK: THE 2020 UPDATE IN PERSPECTIVE

By Alicia H. Munnell*

Introduction

The 2020 Trustees Report, which was prepared before the onset of the COVID-19 pandemic and shutdown of the economy, shows an increase in the program's 75-year deficit from 2.78 percent to 3.21 percent of taxable payroll. The depletion date for the trust fund remains at 2035.

The increase in the deficit is attributable to four main factors: 1) the repeal of the tax on high premium health plans, resulting in lower earnings and payroll taxes (as total compensation shifts more toward health benefits); 2) a lower assumed total fertility rate, resulting in a higher ratio of retirees to workers; 3) lower inflation, producing an immediate reduction in earnings and payroll taxes and only a delayed reduction in benefits; and 4) a lower interest rate, which means less discounting of large future deficits.

On the administrative side, this report once again reflects the continuing absence of public trustees since 2015. These slots should be filled. Public trustees play an important role in overseeing the program and communicating its status to the public. Their continued absence reflects a failure with the political process, not with the program itself.

This *brief* updates the numbers for 2020 and puts the current report in perspective. It also discusses how the COVID-19 pandemic might affect benefits for new retirees, future cost-of-living adjustments, and overall program finances. The bottom line is that while the deficit is larger, Social Security has once again demonstrated its worth during these tumultuous times, when – in the face of economic collapse – it has continued to provide steady income to retirees and those with disabilities. The program faces a manageable financing shortfall over the next 75 years, which – once COVID-19 is under control – should be addressed so that Americans will have confidence that the program will be able to pay the full amount of promised benefits.

The 2020 Report

The Social Security actuaries project the system's financial outlook over the next 75 years under three sets of cost assumptions – high, low, and intermediate. Our focus is on the intermediate assumptions,

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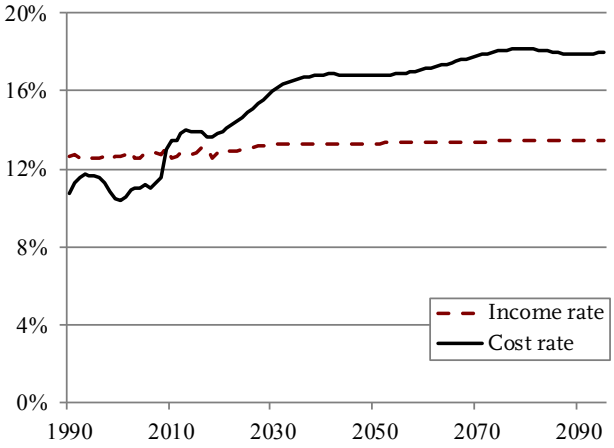
which show the cost of the program rising rapidly to about 17 percent of taxable payrolls in 2040, at which point it declines slightly for a decade before drifting up to 18 percent of taxable payrolls (see Figure 1).

Figure 1. Projected Social Security Income and Cost Rates, as a Percentage of Taxable Payroll, 1990-2094



Source: 2020 Social Security Trustees Report, Table IV.B1.

The increase in costs is driven by the demographics, specifically the drop in the total fertility rate after the baby-boom period. A woman of childbearing age in 1964 could expect to have 3.2 children; by 1974 that expectation had dropped to 1.8. The combined effects of the retirement of baby boomers (those born between 1946 and 1964) and a slow-growing labor force due to the decline in fertility reduce the ratio of workers to retirees from about 3:1 to 2:1 and raise costs commensurately. In addition, the long-term increase in life expectancies causes costs to continue to increase even after the ratio of workers to retirees stabilizes. The increasing gap between the income and cost rates means that the system is facing a 75-year deficit.

The 75-year cash flow deficit is mitigated somewhat in the short term by the existence of a trust fund, with assets currently equal to about two and a half years of benefits. These assets are the result of cash flow surpluses that began in response to reforms enacted in 1983. Before the Great Recession, these cash flow surpluses were expected to continue for several years, but the recession caused the cost rate to exceed the income rate in 2010 (see Table 1).

Table 1. Key Dates for the Social Security Trust Fund, 2016-2020 Trustees Reports

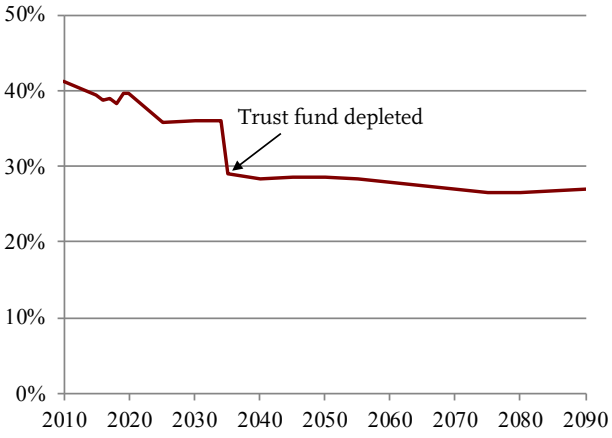
Event	2016	2017	2018	2019	2020
First year outgo exceeds income excluding interest	2010	2010	2010	2010	2010
First year outgo exceeds income including interest	2020	2021	2018	2020	2021
Year trust fund assets are depleted	2034	2034	2034	2035	2035

Sources: 2016-2020 Social Security Trustees Reports.

This shift from annual surplus to deficit means that Social Security has been tapping the interest on trust fund assets to cover benefits sooner than anticipated. And, in 2021, taxes and interest are expected to fall short of annual benefit payments, which requires the government to begin drawing down trust fund assets to meet benefit commitments. The trust fund is then projected to be depleted in 2035.

The depletion of the trust fund does not mean that Social Security is "bankrupt." Payroll tax revenues keep rolling in and can cover 79 percent of currently legislated benefits initially, declining to 73 percent by the end of the projection period. Relying only on current tax revenues, however, means that the replacement rate – benefits relative to pre-retirement earnings – for the typical age-65 worker would drop from 36 percent to about 27 percent (see Figure 2) – a level not seen since the 1950s. (Note that the replacement

Figure 2. Replacement Rate for the Medium Earner at Age 65 from Existing Revenues, 2010-2094



Source: Clingman, Burkhalter, and Chaplain (2020).

rate for those claiming at 65 is already scheduled to decline from 39 percent today to 36 percent because of the ongoing increase in the Full Retirement Age.)

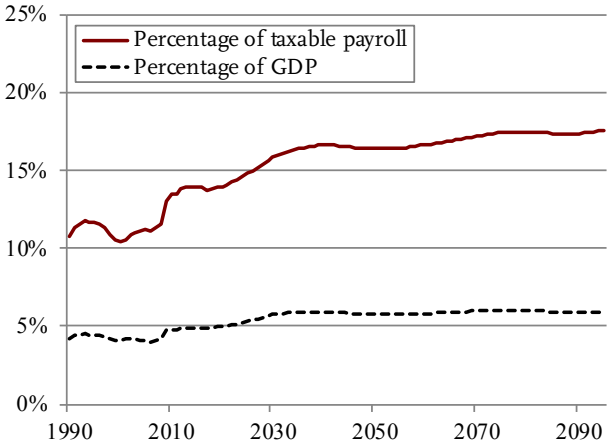
Moving from cash flows to the 75-year deficit requires calculating the difference between the present discounted value of scheduled benefits and the present discounted value of future taxes plus the assets in the trust fund. This calculation shows that Social Security's long-run deficit is projected to equal 3.21 percent of covered payroll earnings. That figure means that if payroll taxes were raised immediately by 3.2 percentage points – 1.6 percentage points each for the employee and the employer – the government would be able to pay the current package of benefits for everyone who reaches retirement age through 2094, with a one-year reserve at the end.

At this point in time, solving the 75-year funding gap is not the end of the story in terms of required tax increases. Once the ratio of retirees to workers stabilizes and costs remain relatively constant as a percentage of payroll, any solution that solves the problem for 75 years will more or less solve the problem permanently. But, during this period of transition, any package of policy changes that restores balance only for the next 75 years will show a deficit in the following year as the projection period picks up a year with a large negative balance. Policymakers generally recognize the effect of adding deficit years to the valuation period, and many advocate a solution that involves "sustainable solvency," in which the ratio of trust fund assets to outlays is either stable or rising in the 76th year. Thus, eliminating the 75-year shortfall should be viewed as the first step toward long-run solvency.

Some commentators cite Social Security's shortfall over the next 75 years in terms of dollars – $16.8 trillion. Although this number appears very large, the economy will also be growing. So, dividing this number – plus a one-year reserve – by taxable payroll over the next 75 years brings us back to the 3.21 percent-of-payroll deficit discussed above.

The Trustees also report Social Security's shortfall as a percentage of Gross Domestic Product (GDP). The cost of the program is projected to rise from about 5 percent of GDP today to about 6 percent of GDP as the baby boomers retire (see Figure 3). The reason why costs as a percentage of GDP more or less stabilize – while costs as a percentage of taxable payroll keep rising – is that taxable payroll is projected to decline as a share of total compensation due to continued growth in health and retirement benefits.

Figure 3. Social Security Costs as a Percentage of GDP and Taxable Payroll, 1990-2094

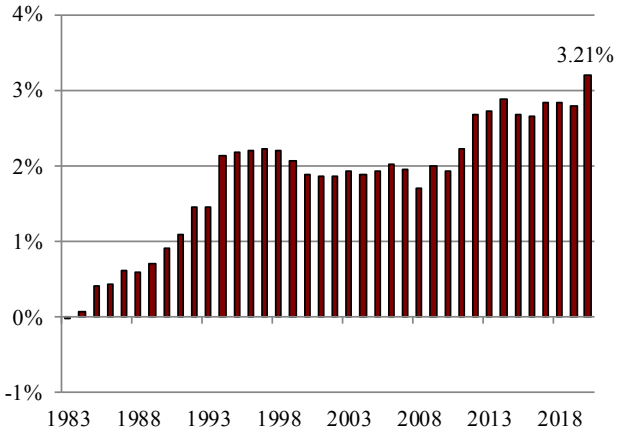


Source: 2020 Social Security Trustees Report, Figures II.D5 and IV.B1.

2020 Report in Perspective

The continued shortfall is in sharp contrast to the projection of a 75-year balance in 1983 when Congress enacted the recommendations of the National Commission on Social Security Reform (often referred to as the Greenspan Commission). Almost immediately after the 1983 legislation, however, deficits appeared and increased markedly in the early 1990s (see Figure 4).

Figure 4. Social Security's 75-Year Deficit as a Percentage of Taxable Payroll, 1983-2020



Sources: 1983-2020 Social Security Trustees Reports.

In the 1983 Report, the Trustees projected a 75-year actuarial surplus of 0.02 percent of taxable payroll; the 2020 Trustees project a deficit of 3.21 percent. Table 2 shows the reasons for this swing. Leading the list is the impact of changing the valuation period. That is, the 1983 Report looked at the system's finances over the period 1983-2057; the projection period for the 2020 Report is 2020-2094. Each time the valuation period moves out one year, it picks up a year with a large negative balance.

Table 2. Reasons for Change in the Actuarial Balance 1983-2020

Item	Change
Actuarial balance in 1983	0.02%
Changes in actuarial balance due to:	
Valuation period	-2.15
Economic data and assumptions	-1.16
Disability data and assumptions	-0.53
Legislation/regulation	+0.07
Demographic data and assumptions	+0.11
Methods and programmatic data	+0.43
Total change in actuarial balance	-3.23
Actuarial balance in 2019	-3.21

Source: Chu and Burkhalter (2020).

A worsening of economic assumptions – primarily a decline in assumed productivity growth and the impact of the Great Recession – has also contributed to the increase in the deficit. Another contributor to the growth in the deficit over the past 35 years has been increases in disability rolls, although that picture has changed dramatically in recent years.

Offsetting the negative factors has been a reduction in the actuarial deficit due to changes in demographic assumptions – primarily higher mortality for women. Legislative and regulatory changes have also had a positive impact on the system's finances. For example, the passage of the Affordable Care Act (ACA) in 2010 was assumed to reduce Social Security's 75-year deficit by 0.14 percent, mainly through an expected increase in taxable wages by slowing the growth in the cost of employer-sponsored health insurance, but the 2019 repeal of the tax on high premium plans has reduced that impact significantly. Methodological improvements had the largest positive effect on the 75-year outlook.

In the short term, between 2019 and 2020, in the absence of any other changes, Social Security's 75-year financial balance would have decreased by 0.05 percentage points as a result of including the large negative balance for 2094 in the calculation (see Table 3). In addition, four other changes further reduced the long-run balance. First, the repeal of the ACA excise tax on high premium plans resulted in higher assumed health care costs and lower taxable wages. Second, in response to persistently low total fertility rates, the Trustees reduced the ultimate fertility rate from 2.00 to 1.95 children per woman, increasing the ratio of retirees to workers and, thereby, program costs. Third, in response to persistently low interest rates, the Trustees lowered the real interest rate from 2.5 to 2.3 percent, resulting in less discounting of high future costs, revenues, and deficits. Finally, the inflation assumption was lowered by 0.2 percentage points, which reduces earnings and revenues immediately and future benefits only with a delay.

Table 3. Reasons for the Change in Actuarial Balance from 2019 to 2020

Total changes for all reasons	-0.43%
Valuation period	-0.05
Legislation/regulation: *Elimination of tax on high premium plans*	-0.12
Demographic data and assumptions: *Primarily lowering fertility from 2.00 to 1.95*	-0.13
Economic data and assumptions: *Primarily lowering real interest rate from 2.5 to 2.3 percent and increasing CPI-W from 2.6 to 2.4 percent*	-0.18
Disability data and assumptions	+0.05

Source: 2020 Social Security Trustees Report, Table IV.B7.

Impact of COVID-19 on Benefits, COLAs, and Finances

As noted, the 2020 Trustees Report was prepared before the onset of the COVID-19 pandemic. The following discussion offers some thoughts on how the pandemic and ensuing shutdown could affect Social Security benefits, cost-of-living adjustments (COLAs), and overall program finances.

Social Security Benefits

To the extent that COVID-19 results in a decline in average earnings in 2020, those born in 1960 (who turn 60 in 2020) could see a permanent cut in their benefits. The problem arises because past earnings and the benefit formula are adjusted by Social Security's Average Wage Index (AWI).

Benefits are calculated in three steps. The first step is determining the worker's Average Indexed Monthly Earnings (AIME), which involves adjusting nominal earnings for each year up to age 60 by the AWI, identifying the highest 35 years (which can include unindexed wages earned after age 60), and dividing by 12 to produce a monthly figure.

The second step is to calculate the worker's Primary Insurance Amount (PIA): the benefit payable at the Full Retirement Age, which for workers age 60 in 2020 is age 67. The PIA is calculated by applying Social Security's progressive benefit formula to the worker's AIME. In 2018, the formula was:

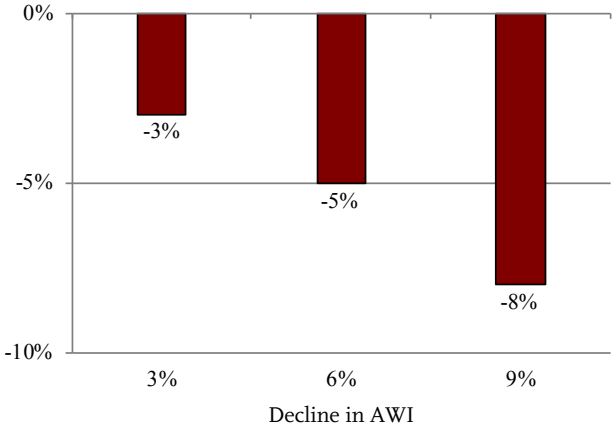
- 90 percent of the first $960 of AIME plus
- 32 percent of AIME between $960 and $5,785 plus
- 15 percent of AIME between $5,785 and $9,875.

The dollar "bend points" in the benefit formula are also adjusted by the AWI (but up to age 62 rather than age 60). For the 1960 birth cohort, the bend point values used to calculate their benefits will reflect the growth of the AWI between 2018 and 2020.

The final steps involve increasing the benefit up to the age of retirement using the Social Security COLA and then reducing the benefit for early claiming or increasing it for later claiming (up to age 70).

The 2020 Trustees Report projects a two-year 7-percent increase in the AWI. But, in the wake of COVID-19, wages in 2020 may well decline rather than increase. Such a decline would affect the benefits of those born in 1960 in two ways. First, a lower AWI reduces the 1960 cohort's AIME. Second, a lower AWI results in lower bend points in the benefit formula. Based on simulations from a recent study (Biggs 2020), Figure 5 shows how declines in the AWI in 2020 would reduce the benefits of a middle-income worker born in 1960. For example, a 6-percent decline in the AWI could result in a 5-percent decline in benefits.

Figure 5. Estimated Benefit Declines for Middle-income Worker Born in 1960 Given Various Declines in AWI



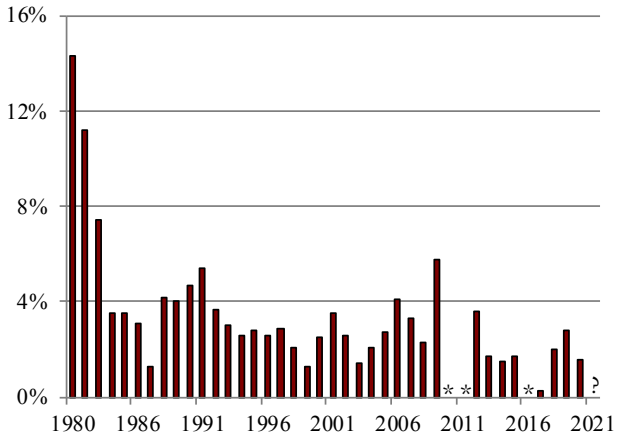
Note: Estimates assume a linear relationship between changes in AWI and changes in benefits.
Source: Author's estimates based on Biggs (2020).

A difference between two cohorts could create a "notch" similar to that of the early-1980s – a great opportunity for economic researchers! If policymakers wanted to offset this discontinuity, they could provide an ad hoc increase for the 1960 cohort, measure payrolls in 2020 based on the first quarter, or make some other adjustment. In any event, a year of negative wage growth can have significant implications for the Social Security benefits of those currently nearing retirement.

COLAs

COVID-19 also has potential implications for Social Security's COLA in 2021, since that adjustment will be determined by comparing the CPI-W in the third quarter of 2020 with that in the third quarter of 2019. If the CPI-W does not increase over that period, the Social Security Administration cannot provide any COLA – the fourth time that such an event would have occurred since the automatic adjustments were introduced in 1975 (see Figure 6). The absence of a COLA should not harm Social Security beneficiaries, since in theory the cost of goods they purchase also have not increased in price – although substantial debate surrounds the appropriate index for retirees.

Figure 6. Social Security Cost-of-Living Adjustment, 1980-2021



Note: Asterisk indicates no COLA for 2010, 2011, and 2016.
Sources: U.S. Social Security Administration (2019) and *2020 Social Security Trustees Report.*

Even with a perfect inflation measure, however, the lack of a Social Security COLA could cause a flap regarding Medicare Part B premiums. The problem is that the law contains a hold-harmless provision that limits the dollar increase in the premium to the dollar increase in an individual's Social Security benefit. This provision applies to roughly 70 percent of Part B enrollees. The other 30 percent includes, among others, enrollees with high incomes who are subject to the income-related premium adjustment. Under current law, Part B premiums for these beneficiaries must be increased enough to offset premiums foregone due to the hold-harmless provision – raising their premiums to extraordinarily high levels.

When a similar situation occurred in 2016, Congress found a work-around. Specifically, the Treasury provided a loan to the Medicare Part B Trust Fund to temporarily cover the foregone revenue from higher premiums, and all beneficiaries were required to gradually pay this loan back through a premium surcharge. Policymakers might opt for a similar fix again this year. Once again, the problem can be solved, but the impact of COVID-19 on Social Security is multi-faceted.

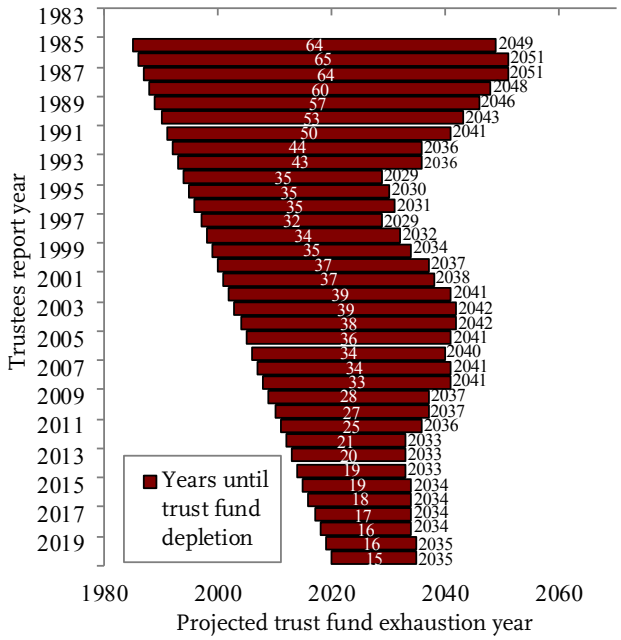
Social Security Finances

The question of great interest is how the current pandemic could affect Social Security finances. Of course, no one knows the answer, because no one knows how long it will take to get the virus under control and how long it will take the economy to recover from the shutdown. That said, two pictures offer a useful way to think about the question.

The first is the conventional figure showing the program costs and income as a percentage of payrolls over the next 75 years – Figure 1 in this *brief*. The pandemic and its aftermath could shift the long-run cost and income lines. While it is always possible that a multi-year period of very low revenues could lower the income line, these long-run cost and income curves are not easily moved as they already implicitly incorporate recessions and recoveries. In other words, while it is not impossible, the 75-year projections may not be the first place to look for action.

The more likely route by which COVID-19 could affect the program's finances is the depletion date for the trust fund, but even here the effect is unlikely to be dramatic (see Figure 7 on the next page). The trust fund is about $3 trillion, which is about two and a half times annual benefits. As noted above, Social Security is currently using the interest on trust fund assets to bridge the gap between cost and income and is scheduled to start drawing on the assets next year. If the COVID-19 economic collapse causes payroll taxes to drop by, say, 20 percent for two years, the depletion date would move up by about two years. Thus, COVID-19 highlights, but does not change, the basic message: As soon as we get the immediate issue of the pandemic off our plate, it would be a good idea to take steps to ensure that people retiring in the mid-2030s and later do not see a 20-25-percent cut in benefits.

Figure 7. Projected Trust Fund Depletion Years, 1983-2020



Sources: 1983-2020 Social Security Trustees Reports.

Conclusion

The 2020 Trustees Report confirms what has been evident for almost three decades – namely, Social Security is facing a long-term financing shortfall that equals 1 percent of GDP. The changes required to fix the system are well within the bounds of fluctuations in spending on other programs in the past. And while the effects of the COVID-19 pandemic are not incorporated in the Report, even such a dramatic event is unlikely to fundamentally alter the long-term financial status of the program.

The pandemic has also underscored the importance of Social Security as a critical and reliable source of support for retirees and those with disabilities. Therefore, once this crisis subsides, stabilizing Social Security's finances should be a high priority to restore confidence in our ability to manage our fiscal policy and to assure working Americans that they will receive the income they need in retirement. The long-run deficit can be eliminated only by putting more money into the system or by cutting benefits. There is no silver bullet.

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