A Concise History of Social Security

With a flick of a pen, Social Security was signed into law in 1935 by Franklin Delano Roosevelt (FDR). Social Security was a product from the Great Depression and was a part of FDR's new deal programs. The new deal was based on Keynesian economics which believed that the government was needed to stimulate the economy back to life in the event of adverse market downturns. In addition, Social Security was partly the result of a successful protest movement by elderly and middle age Americans whose retirement savings were wiped out because of the stock market crash immediately preceding the Great Depression (Gawande, 2011). However, Social Security benefits did not start until 1942, after the Great Depression, and after the US had entered World War II (Martin & Weaver, 2005). Before the advent of Social Security, the elderly and the destitute were confined to poor houses (Gawande, 2011). Further, prior to Social Security, the elderly poverty rate was estimated to be above 50% (Ross, et al. 1987).

Social Security was not solely a product of the Great Depression. The program was partially inspired by Otto von Bismarck, the Chancellor of Germany in the 1880s. Bismarck first put forth the idea while in German parliament. He subsequently established a German social insurance program in 1889 as chancellor (OCA(b)). His program was the first old age retirement insurance program in the world and was designed to be contributory (OCA(b)) which meant German citizens paid taxes into the program when they were in their working years. Moving back to the US, Social Security was not the first public pension in the United States. The US had provided public pensions before the adoption of Social Security, just not universally. For instance, the US provided pensions to soldiers and widowers who were disabled after war (e.g., Civil War and the American Revolution) (OCA(c)).

While benefits did not start until 2042, payroll taxes used to fund the program started to be collected in 1937 at a 2% combined rate (Martin & Weaver, 2005). 1% of payrolls was paid by workers and the other 1% was paid by their employers. Collection of payroll taxes allowed the program to build up reserves to pre-fund future benefits. Before the program became fully operational, it was amended in 1939. These amendments adjusted the benefit formula to be based on average wages rather than cumulative wages which had the effect of increasing benefits of earlier retirees at the expense of future generations (Martin & Weaver, 2005). In addition, these amendments introduced dependent, and survivorship benefits payable to widowers and dependents with goal of protecting against premature deaths of wage-earners (Martin & Weaver, 2005). In addition, these amendments delayed scheduled payroll tax rate increases due to some legislator opposition to the buildup of reserves. Opponents felt higher trust fund balances could encourage government spending by giving the government easier access to capital as Social Security invests in US treasury bonds. Later amendments in the 1940s would delay the rate increases further until 1950 (Martin & Weaver, 2005). These delays were justified by high economic growth from the war economy.

Expansions

From the post-war years till the end of the 1970s Social Security expanded dramatically. The 1950s were a particularly expansionary period for the Social Security program. The program became more comprehensive and disability income was added to the program. During Social Security's early years, benefit increases were implemented on an ad-hoc basis. During the 1950s (Martin & Weaver, 2005) benefits were increased by 77% in 1950, 12.5% in 1952, 13% in 1954 and 7% in 1958 (Martin & Weaver, 2005). On the tax side the taxable maximum was increased, and combined payroll tax rates were raised to 5% by the end of the decade (Martin & Weaver, 2005). These changes are in contrast to how benefits and taxable maximums are determined today as they are automatically linked to indices.

During the 1960s, Medicare was passed (Gawande, 2011). While not directly related to Social Security, Medicare marked a landmark change in Social Insurance. The US now had a comprehensive public health insurance option available for Americans above the age of 65. On the Social Security front, two ad hoc benefit increases were implemented (7% in 1965 and 13% in 1968). The combined payroll tax rates climbed up to 8.4% by the end of the decade (Martin & Weaver, 2005).

The early 1970s were the last of the expansionary policies. In the 1970s, several ad hoc benefit increases were implemented which included 15% in 1970, 10% in 1971 and 20% in 1972 (Martin & Weaver, 2005). Some commentators believe that the amendments overstretched the program. In essence, the adverse economic environment experienced in the 1970s could not support the Social Security expansions. In addition, actuaries discovered that Social Security was underfunded (Berkowitz, 2005). Some of this was driven by lower fertility rates (especially relative to the high post-war fertility rates that created the baby boomers) as well as lackluster economic growth. In addition, the 1972 amendments implemented automatic benefit increases tied to the CPI and automatic taxable maximums increases based on national wages. However, the automatic benefit increases were flawed and led to ballooning benefits. This loophole was subsequently closed in 1977 (Martin & Weaver, 2005). By the end of the decade, the payroll tax rate stood at 10.16% combined (OCA(a)).

Current State

After the 1970's, the sustainability of Social Security came into question. The 1983 amendments were put in place in order to shore up the program as the actuarial projections indicated the program would be unable to support itself in the short term (Martin & Weaver, 2005). The amendments phased in a combined tax rate hike which brought the combined rate up to 12.4%, where it stands today. In addition, Social Security benefits were made taxable and the amendments phased in a retirement age increase from 65 to 67 that began in 2000 (Martin & Weaver, 2005). These programs resulted in surplus buildup during the 1990s. However, the program did not stay on good financial footing for long. I will now turn to more recent

developments. I will discuss demographic trends, Bush's privatization proposals, the Great Financial Crisis, the Trump administration and Covid-19.

Demographic assumptions are a major driver when assessing Social Security's solvency. In Goss et al, 2015, the Social Security actuaries explore the history of the longevity assumptions assumed dating back to the 1982 report. After 1982, life expectancy assumptions were reduced as it appeared the Trustees were underestimating mortality (Goss et al, 2015). This improved solvency since people were expected to live shorter lives and collect less benefits. However, this trend reversed after the 1992 report as the Trustees began revising their life expectancy projections upwards which in turn resulted in worse projected solvency. Below, table 1 summarizes the history of the Trustees' reports dating back to 1982. Note that the year of the report covers the results as of the previous year. For example, the 2020 report is as of December, 31, 2019 and would not specifically cover Covid-19's impact.

					Projected Trust Fund Reserve
Report Year	Income rate	Cost rate	Actuarial Balance	Delta	Depletion
1982	12.27	14.09	-1.82		1983
1983	12.87	12.84	0.02	1.84	solvent
1984	12.90	12.95	-0.06	-0.08	solvent
1985	12.94	13.35	-0.41	-0.35	2049
1986	12.96	13.40	-0.44	-0.03	2051
1987	12.89	13.51	-0.62	-0.18	2051
1988	12.94	13.52	-0.58	0.04	2048
1989	13.02	13.72	-0.70	-0.12	2046
1990	13.04	13.95	-0.91	-0.21	2043
1991	13.11	14.19	-1.08	-0.17	2041
1992	13.16	14.63	-1.46	-0.38	2036
1993	13.21	14.67	-1.46	0.00	2036
1994	13.24	15.37	-2.13	-0.67	2029
1995	13.27	15.44	-2.17	-0.04	2030
1996	13.33	15.52	-2.19	-0.02	2029
1997	13.37	15.60	-2.23	-0.04	2029
1998	13.45	15.64	-2.19	0.04	2032
1999	13.49	15.56	-2.07	0.12	2034
2000	13.51	15.40	-1.89	0.18	2037
2001	13.58	15.44	-1.86	0.03	2038
2002	13.72	15.59	-1.87	-0.01	2041
2003	13.78	15.70	-1.92	-0.05	2042
2004	13.84	15.73	-1.89	0.03	2042
2005	13.87	15.79	-1.92	-0.03	2041
2006	13.88	15.90	-2.02	-0.10	2040
2007	13.92	15.87	-1.95	0.07	2041
2008	13.94	15.63	-1.70	0.25	2041

Table 1 —Long-Range Actuarial Balances and Trust Fund Depletion Dates
As a percentage of taxable payroll

2009	14.02	16.02	-2.00	-0.30	2037
2010	14.01	15.93	-1.92	0.08	2037
2011	14.02	16.25	-2.22	-0.30	2036
2012	14.02	16.69	-2.67	-0.45	2033
2013	13.88	16.60	-2.72	-0.05	2033
2014	13.89	16.77	-2.88	-0.16	2033
2015	13.86	16.55	-2.68	0.20	2034
2016	13.84	16.50	-2.66	0.02	2034
2017	13.84	16.67	-2.83	-0.17	2034
2018	13.84	16.69	-2.84	-0.01	2034
2019	13.81	16.60	-2.78	0.06	2035
2020	13.85	17.06	-3.21	-0.43	2035
2021	13.78	17.31	-3.54	-0.33	2034
2022	13.78	17.20	-3.42	0.12	2035

It is interesting that there was a downturn in the income rate after 2009. Three drivers could be higher inequality (less taxable payroll) following the Financial Crisis, adverse working age mortality and low fertility rates (Harris, et al 2021, SSBT, 2022). Overall, the current mortality environment is not conducive to Social Security's solvency. Deaths of despair are ravaging the younger working population, especially drug overdoses which exploded in the 2010s thanks to synthetic opioids (Harris, et al 2021). When it became clear that prescription opioids such as OxyContin presented dangers to patients, prescriptions of these drugs declined. However, this led to the addicted turning to the black market for opioids as the demand for painkillers did not abate. Mortality improvement continued, albeit at a slower rate than before, in the older age population in contrast to the working age population's experience (Harris, et al 2021). This is problematic because mortality is rising for young people who fund the program but declining for older people who receive from the program. In addition, much of these deaths of despair are concentrated in the non-bachelor's degree population. These people tend to have lower income which means smaller benefits but most of their earnings are taxable. Richer people will tend to have larger benefits (not on a relative basis) but not all their earnings are taxable. Further, US inequality trends can be seen by the fact that the percentage of payrolls below the taxable maximum has declined to 82.4% in 2020 from 88.6% in 1982 (SSBT, 2022).

The next chapter in our story is the privatization proposals in the mid-2000s. In his second term, George W. Bush planned to transform Social Security. His proposal was to allow individuals to invest their payroll taxes in the private market and allow individuals to bear the fruits (or the toxicants) of private market yields (Brandon and Mohr, 2019). Effectively he would be converting Social Security into a defined contribution pension plan where the government shifted the interest rate risk to individuals. Throughout the beginning of his second term, he championed this initiative and justified it as helping younger workers who were expected to not receive full Social Security benefits when they retire. However, popularity declined with the public and after Hurricane Katrina, the effort was deserted (Galston, 2007). Privatization further lost credibility after the Great Financial Crisis. Had Social Security been invested in private securities (such as stocks or non-governmental bonds), in private accounts as proposed, individuals would have to

absorb the adverse economic shocks from Financial Crisis. During the low-rate environment following the Great Financial Crisis, the actuarial deficit deteriorated from 1.70% in 2008 to 2.66% in 2016 as seen in table 1 above. A large part of this appears to be driven by the low-rate environment as the trust fund investments yielded less than previously projected.

During the Trump years, the largest impacts to the program, besides Covid-19 were the administration's immigration policy, continued low-rate environment and the repeal of the Affordable Care Act's excise tax. The trustees reduced immigration assumptions which leads to a reduction in the projected working age population subsequently worsening solvency. In addition, low interest rates that continued during much of the Trump presidency also drove some increase in the actuarial deficit (SSBT, 2020). In 2019, the Trump administration repealed the excise tax on employer-sponsored group health coverage attached to the Affordable Care Act. This is projected to eat into worker's real wages which in turn is projected to reduce payroll taxes (SSBT, 2020). Specifically, the trustees estimate that this change will cost 0.13% of the 0.43% increase in the actuarial deficit (SSBT, 2020).

The outbreak of the Covid-19 pandemic brought millions of deaths and economic hardship to the world and Social Security was not immune to the impact. The elderly population was particularly vulnerable to Covid-19. From the trust fund's perspective this could improve solvency due to heightened mortality for those collecting benefits. However, mortality was not just elevated for the retired population but also the working age population. Some of the excess mortality was driven by the virus however it appears a significant portion of the excess mortality was also driven by unintended consequence from pandemic responses. For example, the excess mortality rate (excluding Covid-19 deaths) for the 15-34 age group from January 3, 2021 to January 1, 2022 was 21% (Leavitt, 2022). This rate was calculated from CDC data. It is the total amount of excess deaths minus Covid deaths all divided by the expected number of deaths based on historical experience. This trend could be driven by drug overdoses and other deaths of despair.

As a result of the pandemic and subsequent lockdowns, the US economy contracted. In turn payrolls decreased which reduced the amount of funding supporting Social Security. This can be seen by the Actuarial deficit in 2021, which worsened to 3.54% from 3.21%. This implies that the negative economic outlook was a more powerful lever than the pandemic's mortality impact. In 2022, the trustees reported a slight rebound in the actuarial deficit to 3.42% due to better-than-expected US economic recovery, improved future economic outlook and reduced projected disability payments. (SSBT, 2022). This pattern of lower disability incidence was a common trend for disability insurance products during the pandemic. People were hesitant to go on claim as institutions were at a heightened risk to infection. For example, the debacle of the nursing homes during the start of the pandemic could have contributed to their hesitation.

Conclusions

Social Security is one of the most important social programs in the US. It is credited with reducing elderly poverty by 25 percentage points, from 35% in 1959 to 10% in 2005 (Martin & Weaver, 2005). Further, a significant number of Americans depend on the program. In 2014, it

was estimated that Social Security contributes at least half of total retirement income for 52% of Americans (Dushi, Iams, & Trenkamp, 2017). This program is broadly popular with Americans as an AARP poll of retirees found 96% supported the program (AARP, 2020).

Today, in light of the debt debates and the divided congress, Social Security has become a centerpiece of the current political debates raging in Washington. Social Security is not on strong financial footing and some are seeking to cut the program to shore up its financial standing. However, cutting Social Security is unpopular with the elderly electorate who are consistent voters. As discussed in previous articles, in order to improve funding, taxes will either need to raised or benefits will need to be increased to shore up the trust fund. These are both unpopular, which have caused congress to defer enacting reforms. A trend called political inertia by John Turner (Turner, 2017). Overall, solutions will need to balance tradeoffs between the rich and poor, as well as the old and young. For instance, raising the taxable maximum appears popular as it affects a select few (but powerful) Americans. While saving the program may be costly in the short term electorally, procrastinating and letting the program fail could prove to be painful for the nation's elderly's well-being.

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