An Analysis of the Solvency and Future of the US Social Security System

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Abstract

In this article I discuss the financial history of the United States' Old-Age, Survivors, and Disability Insurance program (OASDI), also known as Social Security; I discuss changes in the benefits formula, the payroll tax, and other related issues. I show that over the last few decades participation in the social security system has become far less appealing, and that currently most social security participants will receive a negative return on their payments.

Keywords: Social Security, Government Debt, Economics,

JEL classification codes: H10, H23, H53, H55

Introduction

In this article I discuss the financial history of the United States' Old-Age, Survivors, and Disability Insurance program (OASDI) also known as Social Security. Both the revenues and the costs to the Social Security system have changed drastically since its origins during the Roosevelt administration. A program that once was a benefit to many people has become a burdensome tax on the young who will likely see a negative return on their money. Many of today's retirees would also have been better off without the system.

In this paper I discuss the history and likely future of the Social Security System. I detail the changes that have been made over the years to the benefits formula, the payroll tax, and other related issues. I also look at changes that are currently being proposed to the benefits formula, taxation of social security benefits, and the indexing of benefits to the Consumer Price Index. I show that over the last few decades, participation in the social security system has become far less appealing than it once was, and that the future looks even more grim for the program.

Literature Review

Many detailed books have been written on the history of the United States Social Security system including Gaumnitz, and Gaumnitz, The Social Security Book,

Myers, Social Security and Schieber, and Shoven, The Real Deal: History and Future of Social Security. The Social Security Administration has written its own history of the Social Security system, Social Security, Historical Development and Background of Social Security which is available on their webpage. There have also been many publications on the future and solvency of the Social Security system. Some of these have been written by the social security system itself like Goss, The Future Financial Status of the Social Security System. Many other discussions are available from George Mason University's Mercatus Center (mercatus.org), the Cato Institute (www.cato.org), the Independent Institute (www.independent.org), and many other sources.

Article

When an investor buys an annuity or another retirement product from an insurance or mutual fund company, the contract is constant and enforceable through the United States court system. When a United States tax payer is forced to pay for a government backed retirement system such as the Old-Age, Survivors, and Disability Insurance program (OASDI) also known as Social Security, the contract can and is changed on a regular basis by the United States government, and those changes are generally not to the benefit of the taxpayer.

Participation in the Social Security system became compulsory in 1935 and the first monthly retirement checks were issued in 1940. The first monthly check was issued to Mrs. Ida May Fuller of Ludlow, Vermont. She paid a total of around $25 into the Social Security system and received over $22,000 in benefits in return from the system due to living to 100 years of age. (DeWitt) The other early retirees of the Social Security system on average also did very well. Retirees in 1977 are estimated to have received about seven times what they paid into the Social Security system. Retirees entering the program in the twenty first century will probably receive a negative rate of return on their investment. (Social Security, Historical) (Gaumnitz, 4) One of the major reasons for this is the pay as you go nature of the system. Unlike a life insurance policy or a private pension plan, social security is not required to be funded. Current retirees' checks are paid for out of the contributions of future retirees, and the ratio of future to current retirees has decreased drastically over the lifetime of the social security program. The ratio of payees to retiree was 160 in 1940, 5 in 1960, and is under 3 in 2013. (Social Security, Frequently)

PIA formula

The amount of monthly income a Social Security recipient receives is called the Primary Insurance Amount. The current Primary Insurance Amount (PIA) benefits formula was created in 1979 and is based on two bend points.

For an individual who first becomes eligible for old-age insurance benefits or disability insurance benefits in 2016 his PIA will be the sum of:

(a) 90% of the first $856 of his average indexed monthly earnings (AIME), plus

(b) 32% of his average indexed monthly earnings (AIME) over $856 and through $5,157, plus

(c) 15% of his average indexed monthly earnings (AIME) over $5,157,

where the Average Indexed Monthly Earnings (AIME) is currently the average of the social security recipients top 35 years of lifetime income divided by 12. Each year's monthly income is expressed in 2016 dollars using the Consumer Price Index (CPI). (Social Security, Primary)

Benefit Cuts after the 1970s

By the late 1970s it was obvious that the Social Security system was going to experience significant solvency issues since the ratio of workers to retirees had decreased from around 40 to 1 in 1945 to around 3 to 1 in 1980 and most of the surplus payroll taxes paid into the social security system had been spent on other government programs. (DeRugby) Payroll taxes were therefore increased and a series of changes were made to the Primary Insurance Amount (PIA) payment formula to cut the benefit payments that Social Security enrollees would receive.

The PIA formula before 1979 was even more complicated than the one used in 2016. It had 10 bend points, but gave more credit to high income workers. (Myers, 225) The changes in the benefit formula in 1979 resulted in, on average, a seven percent reduction in monthly social security payments for new retirees. (Myers, 227) Under the current benefit formula, if a social security enrollee has a total life-time income over $2 million, he will very likely have a negative return on his investment. For lifetime incomes between around $0.5 million and $2 million the enrollee has some chance to break even. Enrollees with a total lifetime income less than $0.5 million have a good chance of a positive return from the Social Security system.

The number of years included in the earnings base (the number of years of income which are averaged to determine the monthly benefit payment) was gradually increased from 23 years for Americans born in 1917 to 29 years for Americans born in 1923 to 35 years for Americans retiring in 2016. For parents who took years off from their career to raise children, students who spent a long time in graduate school, and taxpayers whose income was much higher during later parts of their lifetime this resulted in a significant decrease in monthly social security checks. (Gaumnitz, 51)

Since the 1970s, the AIME used to determine the PIA has been indexed using the Consumer Price Index (CPI). So the higher the CPI, the larger a recipient's monthly Social Security check will be. Social Security benefits for retirees are also currently increased annually by the CPI. This means that one way the government can lower benefit payments is by under-estimating the inflation rate. The Bureau of Labor Statistics (BLS) has redefined how the CPI is calculated many times since the 1980s, lowering the CPI in each case. According to economist John Williams at Shadow Government Statistics, the CPI currently underestimates the inflation rate by at least four percent per year. If this is the case, Social Security recipients receive a four percent reduction in their buying power each year. (Williams)

The retirement age was increased from 65 for those born in 1937 or before to 67 for those born in 1960 or later. Since enrollees do not get maximum benefits until they are 70 years old, it could be argued that 70 is really the current full retirement age.

The taxable earnings base (the maximum income that is subject to Social Security taxes) and Social Security tax rates have also increased drastically since the Social Security system was first created. The taxable earnings base was $3,000 in 1937, $25,900 in 1980, and $118,500 in 2016. The Old-Age and Survivors Insurance (OASI) tax was 2.0% in 1937, 9.04% in 1980, and 10.98 % in 2016. This number includes both the employer and employee portion of the tax. When the 1.42% Disability Insurance tax and the 2.9% Medicare tax are added in, the total payroll tax is currently 15.3%. (Myers, 125)

In 1983, legislation was passed to tax Social Security benefits for the first time. (Myers, 36) Currently, if a taxpayer's provisional income is more than $25,000 on a single return or $32,000 on a joint return, their social security benefits will be taxed at between 50% and 85% of their normal tax rate.

Conclusion: Further Tax Increases and Benefits Cuts are Likely in the Near Future

The future of the United States Social Security System does not look good. According to the Social Security Administration by 2033 payroll taxes will only cover around 77% of estimated retirement benefits. It is therefore likely that even further social security benefit cuts and payroll tax increases will occur in coming years. Increasing Social Security tax rates from 12.4% to 15.5% and eliminating the taxable maximum (i.e. making all income subject to Social Security taxes) is currently being considered. Other tax increases being proposed include taxing contributions to flexible spending accounts and creating a national Value Added Tax (VAT).

Further cuts to Social Security benefits are also on the table. Proposals to cut benefits include increasing the retirement age from 67 to 70 years, increasing the number of years included in the earnings base from 35 to 38 or 40, increasing the percentage of Social Security benefits that are subject to income taxes, and further decreasing the credit middle and high income workers get by decreasing the coefficients after the first and second bend points from 0.32 to 0.30 and from 0.15 to 0.10. Adding a third bend point after which the coefficient is 0.05 in also being considered. (IRET) Redefining the CPI index to further underestimate the inflation rate is also on the table. It is likely that retirees receiving Social Security benefits will do very poorly in the future. (Social Security, Summary)

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References

DeRugy, Veronique. (2012, May 22). How Many Workers Support One Social Security Retiree? Retrieved from http://mercatus.org/publication/how-many-workers-support-one-social-security-retiree

DeWitt, Larry. (1996, July). Details of Ida May Fuller's Payroll Tax Contributions. Research Note #3. Retrieved from http://www.ssa.gov/history/idapayroll.html.

Gaumnitz, Jack E., and Gaumnitz, Erwin A. (1984). The Social Security Book. New York: Arco Publishing Inc.

Goss, Stephen C. (2010). The Future Financial Status of the Social Security System. Social Security Bulletin. 70(3). Retrieved from https://www.ssa.gov/policy/docs/ssb/v70n3/v70n3p111.html

IRET Policy Bulletin. (2011, May 25). Retiring with Financial Security and Dignity: Social Security, the Commission, and Markets. Retrieved from

http://object.cato.org/sites/cato.org/files/articles/shipman-5-25-11-iret.pdf

Mody, Arjun. (2011, October 24). Annual Report. The Harvard Political Review. The Social Security Taboo. Retrieved from http://harvardpolitics.com/arusa/the-social-security-taboo/

Myers, Robert J. (1985). Social Security 3rd edition. Mryn Mawr, Pennsylvania: McCahan Foundation.

Schieber, S. and Shoven J. (1999) The Read Deal: History and Future of Social Security. New Haven: Yale University Press.

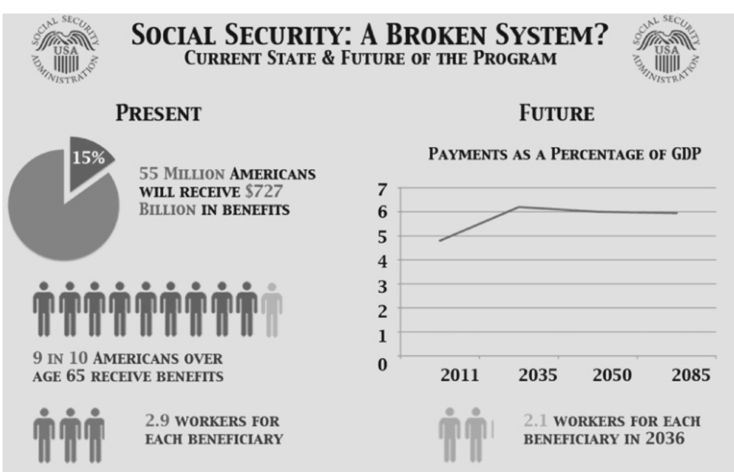
Social Security. Frequently Asked Questions. Retrieved from https://www.ssa.gov/history/ratios.html

Social Security. Historical Development and Background of Social Security. Retrieved from http://www.ssa.gov/history/briefhistory3.html

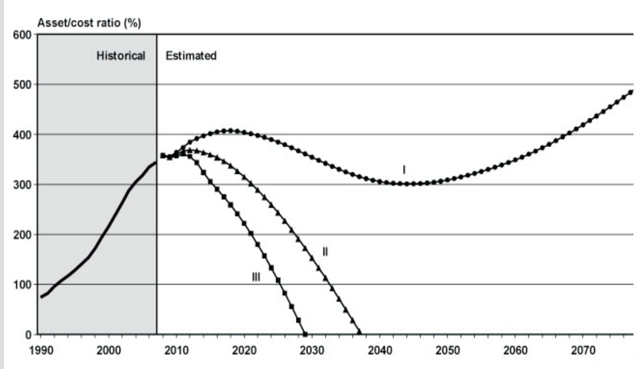
Social Security. Primary Insurance Amount. Retrieved from http://www.ssa.gov/oact/cola/piaformula.html

Social Security. (2016, January 20) Summary of the Provision that would change the Social Security Program. Retrieved from http://www.ssa.gov/OACT/solvency/provisions/summary.pdf

Williams, John. Shadow Government Statistics. Retrieved from www.shadowstats.com



(Mody)



(Goss)