



RETIRING WITH FINANCIAL SECURITY AND DIGNITY: SOCIAL SECURITY, THE COMMISSION, AND MARKETS

The National Commission on Fiscal Responsibility and Reform Weighs In

In December of 2010 President Obama's deficit and debt bipartisan group, The National Commission on Fiscal Responsibility and Reform, released its study on the fiscal health of the United States. In the last paragraph of the preamble the authors suggested that time is running out.

After all the talk about debt and deficits, it is long past time for America's leaders to put up or shut up. The era of debt denial is over, and there can be no turning back. We sign our names to this plan because we love our children, our grandchildren, and our country too much not to act while we still have the chance to secure a better future for all our fellow citizens.¹

In their general attack on deficits and debt they spoke specifically about Social Security, which has a 75-year unfunded liability equal to \$6.9 trillion in present value.² They said "Social Security is far more than just a retirement program—it is the keystone of the American social safety net, and it must be protected." This statement is a bit ambiguous. Does it mean that the goal of Social Security, retirement income broadly speaking, must be protected? Or does it imply that the structure of the system, by which the goal is achieved, must be protected?³ In other words, is it the means or the ends that must be preserved? This paper will attempt to answer that question.

It starts with a brief review of Social Security as it presently exists in order to provide a frame of reference for the Commission's proposal. Both the present system and the Commission's suggestions

¹ See "The National Commission on Fiscal Responsibility and Reform," http://www.fiscalcommission.gov/sites/fiscalcommission.gov/files/documents/TheMomentofTruth12_1_2010.pdf, p. 7.

² *The 2010 Annual Report of The Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*, <http://www.ssa.gov/oact/tr/2010/tr2010.pdf>, p. 63, Table IV.B5, line E, for OASI, future operations omitting trust fund balance.

³ See "The National Commission on Fiscal Responsibility and Reform," *op. cit.*, p. 48.

will then be compared to an alternative structure. Lastly, possible objections to the alternative will be offered as well as answered.

The Current System

Social Security is comprised of two programs.

The Old-Age, Survivors, and Disability Insurance (OASDI) program in the United States makes available a basic level of monthly income upon the attainment of retirement eligibility age, death, or disability by insured workers. The OASDI program consists of two separate parts that pay benefits to workers and their families—Old-Age and Survivors Insurance (OASI) and Disability Insurance (DI). Under OASI, monthly benefits are paid to retired workers and their families and to survivors of deceased workers. Under DI, monthly benefits are paid to disabled workers and their families.⁴

OASI is by far the larger of the two programs. For calendar year 2009 OASI employment taxes were \$570.4 billion, and beneficiaries were 42.4 million. DI's employment taxes and beneficiaries were \$96.9 billion and 9.5 million, respectively.⁵ This paper examines OASI only; Disability Insurance is not part of the analysis.

OASI finances its benefit payments with a pay-as-you-go (PAYG) structure that is common among the more than 100 countries that have systems such as ours. Under a PAYG system today's benefits to the old are paid by today's payroll taxes from the young. Tomorrow's benefits to today's young are to be paid by tomorrow's taxes from tomorrow's young. Thus, benefit payments are an intergenerational transfer from younger workers to older retirees.

The gross amount of benefits paid, and taxes received, largely depend on three factors: the increase in wages subject to tax, life expectancy, and the fertility rate. All three of these variables are in conflict with pay-as-you-go financing. They cause PAYG systems to be inefficient, and constantly subject them to benefit cuts and tax increases just to keep them afloat. Indeed, the President's Commission seems to concur.

To save Social Security for the long haul, all of us must do our part. The most fortunate will have to contribute the most, by taking lower benefits than scheduled and paying more in payroll taxes. Middle-income earners who are able to work will need to do so a little longer.⁶

⁴ *The 2010 Annual Report of The Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, op. cit., p. 2*

⁵ *Ibid*, Table III.A1, p. 23, and Table III.A3, p. 29, Table IV.B2, p.53.

⁶ See "The National Commission on Fiscal Responsibility and Reform," *op. cit.*, p. 48.

The Problem of Financing Benefits with Taxes

Given that benefits are financed by taxing wages, benefits can increase year-to-year by no more than wages increase year-to-year, holding the tax rate constant. This increase is in one sense Social Security's rate of return. Social Security's actuaries estimate that average annual wages in covered employment will increase, after adjusting for inflation, by 1.4 percent from 2015 to 2020, and by 1.2 percent from 2020 to 2084.⁷ Although annual increases in real wages have been variable, the average annual increase since 1960 has not been materially different than the projected increase.⁸

The PAYG structure can be compared to a saving and investment model in which returns equal the increase in real wages.⁹ To see this, imagine that one saved \$1,000 a year for a 45-year working career, and earned a real rate of return of 1.4 percent, the projected real wage increase from 2015 to 2020. At the end of 45 years the accumulated wealth would be \$62,101. Now assume the \$1,000 were invested in a diversified portfolio of stocks and bonds, with a 70/30 percent allocation, and earned that portfolio's average annual real return from 1926 through 2010, 7.35 percent.¹⁰ Under these assumptions the accumulated wealth would be \$317,377. This number is not intended to represent what one would accumulate going forward, rather it is a way of comparing different outcomes from PAYG financing versus saving and investing in capital markets. A more detailed analysis of this trade-off is presented later.

These different results do not yet take into account how many wage earners or retirees there are. This relationship, or ratio of workers to retirees, is largely determined by life expectancy and the fertility rate. The trends of each severely challenge PAYG financing.

The Demographic Pyramid Collapses: Life Expectancy Rises

Life expectancy is positively correlated with wealth.¹¹ On even casual reflection, this is intuitive. Wealthier countries have greater ability to provide clean water, clean air, nutritious food, more advanced pharmacology, better health care, better transportation facilities to access healthcare, and many of the other things that we human beings need to survive.

⁷ *The 2010 Annual Report of The Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*, *op. cit.*, Table V.B1, p. 99.

⁸ *Ibid.*

⁹ See Peter J. Ferrara, *Social Security, The Inherent Contradiction* (Washington: Cato Institute, 1980), pp. 121-122.

¹⁰ This portfolio is constructed of 63 percent large-cap stocks, 7 percent small-cap stocks, 15 percent each of long-term government bonds, and long-term corporate bonds. The historical returns of each series is from "Ibbotson SBBI 2011 Classic Yearbook, Market Results for Stocks, Bonds, Bills, and Inflation 1926-2010" (Chicago: Morningstar, 2011), pp. 236-259.

¹¹ See "Averting the Old Age Crisis" (New York: Oxford University Press, 1994), p. 31.

Two extremes, Switzerland and Mozambique, magnify this correlation. Switzerland is a wealthy country with GDP per capita of \$42,900. Life expectancy is 81.07 years at birth. Mozambique is a poor country. GDP per capita is \$1,000, life expectancy is 51.78 years.¹² Most countries fit between these two extremes in both wealth and life expectancy.

Not only does wealth explain a fair amount of the difference in life expectancy across the world at any moment in time, it explains some of the change in life expectancy within a country as it becomes wealthier across time. The United States is a good example. Life expectancy at birth was 63.5 years in 1940 when real GDP was \$1.2 trillion. In 2010 GDP was \$14.7 trillion, and life expectancy was 78.1 years. According to Social Security's actuaries life expectancy is expected to increase to 85 years in 2085.¹³ As people live longer, Social Security benefits must be paid for a longer period causing a financial burden to the system.

And Fertility Rates Fall

Fertility rates, or births per woman of child-bearing age, are also related to wealth.¹⁴ As economies grow women have more opportunity to enter the work force. They tend to put off the age of marriage, the age of their first child, and tend to have fewer children. Other variables, such as the availability of contraceptive devices, influence fertility rates, but wealth matters.

To use the Switzerland and Mozambique example again, their fertility rates are 1.46 and 5.46, respectively. And, again, most countries fit between these two concerning GDP per capita and fertility rates.

The fertility rate that stabilizes a population, called ZPG for zero population growth, is 2.1. If all women had 2.1 children, the population would eventually stabilize. (The extra 0.1 allows for girls who die before reaching childbearing age or who do not procreate.) Holding everything else constant, a higher rate leads to a growing population, a lower rate to a shrinking population.

Social Security's actuaries report that the U.S. fertility rate in 1950 was 3.03, and it was only 2.08 in 2010.¹⁵ As the fertility rate falls there are fewer workers to tax to pay benefits to retirees who are living longer. This causes taxes to rise or benefits to be cut if Social Security stays within the PAYG structure.

¹² See The Central Intelligence Agency, "The World Factbook," available at <https://www.cia.gov/library/publications/the-world-factbook/index.html>.

¹³ *The 2010 Annual Report of The Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*, *op. cit.*, Table V.A3, p. 90.

¹⁴ See "Averting the Old Age Crisis," *op. cit.*, p. 29.

¹⁵ *The 2010 Annual Report of The Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*, *op. cit.*, Table V.A1, p. 84.

Social Security Becomes Poor

As wealth increases—in a sense, and paradoxically—Social Security becomes poor. This is because, as noted above, demographics squeeze the system. This clearly has been our history. There were 16.5 workers per beneficiary in 1950, and only 2.9 in 2010.¹⁶ This demographic dynamic puts a severe strain on PAYG financing, causing the system to need more revenue. And politicians, who normally analyze the problem in simplistic cash flow terms, respond based upon that perspective. In 1950 when there were 16.5 workers per beneficiary, the payroll tax rate was just 3 percent on only \$3,000 of wages. During the following 60 years the demographic pyramid continued its collapse, resulting in 18 increases in the payroll tax rate and 43 increases in the wage subject to tax. As of 2010 the OASI tax rate was 10.6 percent on wages of \$106,800. The maximum OASI tax since 1950, therefore, jumped from \$90 to \$11,320. Even after adjusting for inflation, that's a 1,322 percent increase. It is interesting to note that even though such a dramatic increase in payroll taxes has not solved Social Security's financial problems, the president's Commission advocates more of the same: raising taxes further.

Social Security's Benefit Formula

Social Security's benefit formula is abstruse yet important to understand because any changes to it—and the Commission has recommended many—mean little unless one knows what is being changed. One factor of the formula that is not difficult to understand, but is surprising to many, is that Social Security benefits are not based upon Social Security taxes. The payroll tax plays no role in determining benefits. Rather, benefits are based on wages.

To calculate retirement benefits one's historical wages are listed by year, earliest to latest. Each year's wage is then multiplied by an indexing factor to make it comparable (roughly speaking, adjusting for inflation and productivity growth) to recent years' wages. The indexing is based on the year in which the beneficiary turns 60, say 2009. The indexing factor is the ratio of the average wage (the average wage economy-wide covered by Social Security taxes) in 2009 (\$40,711.61) divided by the average wage, say for 1971 (\$6,497.08), resulting in a factor of 6.2661. If the new retiree's nominal earnings in 1971 were \$6,075, then his 1971 indexed earnings would be \$38,067, ($\$6,075 \times 6.2661$). The indexed wage for 1972 would be the 1972 nominal wage multiplied by the 2009/1972 average wage ratio. This process is repeated for all years up to wages earned at age 60. The factor starting thereafter is 1, resulting in no further adjustment in wages.

Only the worker's highest 35 years' indexed earnings are counted in the benefit formula. They are added, and the sum is divided by 420, the number of months in 35 years. The resulting number is called average indexed monthly earnings, or AIME.

¹⁶ Ibid, Table IV.B2, p. 53.

AIME is then subjected to a formula of "replacement percentages" and "bend points" to determine one's primary insurance amount (PIA). For one retiring in 2010 at the normal retirement age of 66 there were three replacement percentages, 90/32/15, and two bend points at \$656 and \$3,955.

If this retiree had an AIME of \$6,000, his PIA would equal 90 percent of AIME up to the first bend point of \$656, plus 32 percent from there up to the next bend point of \$3,955 (.32 x (3,955 - 656), plus 15 percent of the remainder (6,000-3,955).

In this example, the result is $(656 \times .9) + (3,299 \times .32) + (2,045 \times .15)$ or \$1,953. The PIA and bend points pertain to the first year of eligibility, normally age 62. The PIA is then adjusted for inflation from age 62 to age 66, resulting in the first benefit check of \$2,114. Under present law, benefits increase annually with inflation thereafter.

There are also penalties or credits depending on whether one begins to receive benefits before or after the normal retirement age.

With that behind us, the Commission's recommendations and specifically its proposed benefit formula change may be more understandable, or at least they have a frame of reference.

The Commission's Recommendations¹⁷

Listed below are most of the Commission's recommendations.

- The Commission recommends altering the benefit formula by changing the replacement rates from 90/32/15, as explained above, to 90/30/10/5. This reduces benefits, and increases the progressivity of the benefit formula. Those who lose the most are higher-wage earners. The change starts in 2017, is phased in, and completed in 2050. The following details are based on the Commission's report, and are in 2010 dollars.

The Commission estimates that under present law a 2050 retiree who had a working history of maximum covered wages would have an AIME (in 2010 dollars) of \$14,417 with the following bend points and replacement rates.¹⁸

$\$1,250 \times .90 = \$1,125$
 $\$7,250 \times .32 = \$2,320$
 $\$5,917 \times .15 = \$ 888$

¹⁷ See "The National Commission on Fiscal Responsibility and Reform," *op. cit.*," pp. 48-55.

¹⁸ The Commission doesn't actually present AIME but rather annual wages. Their annual wages have been converted to monthly wages to make the comparison to AIME clearer.

On these assumptions the PIA is \$4,333 (not calculated by the Commission).

The same worker under the Commission's proposal would be treated differently, resulting in a PIA of \$2,946.

$$\$1,250 \times .90 = \$1,125$$

$$\$4,000 \times .30 = \$1,200$$

$$\$3,250 \times .10 = \$ 325$$

$$\$5,917 \times .05 = \$ 296$$

This results in a 32 percent reduction in initial benefits for a maximum-wage worker relative to today's law, and a reduction in benefits for all workers who have AIME greater than the first bend point.

Notice that the present law's second bracket of \$7,250, presently multiplied by .32, is split into two parts of \$4,000 and \$3,250, and then multiplied by .30 and .10, respectively. Also, the remaining \$5,917 is multiplied by .05 instead of present law .15.

The Commission presentation of its formula restructuring is actually a bit more confusing, and may be in error. It uses annual earnings instead of monthly, and rounds to the nearest \$1,000. Therefore, converting to monthly earnings, or AIME, will not produce precisely Social Security's bend points, but they should be close.

Social Security's bend points for 2010 are \$761 and \$4,586. AIME up to the first bend point of \$761 is multiplied by .90. The difference between the second and first bend points ($4,586 - 761 = 3,825$) is multiplied by .32. Any excess AIME is multiplied by .15.

$$\$ 791 \times .90$$

$$\$ 3,825 \times .32$$

$$\$_{\text{excess}} \times .15$$

The Commission's representation of Social Security's 2010 bend points (again, converted from annual earnings which have been rounded) is \$750 and \$5,333. The first bend point is close Social Security's, the second is not. The Commission does not explain this significant difference. At any rate, this results in:

$$\$ 750 \times .90$$

$$\$ 4,583 \times .32$$

$$\$_{\text{excess}} \times .15$$

This formula provides benefits in excess of Social Security's, a result that is the opposite of the Commission's stated intent. If their 2050 projections are based, in whole or in part, on their misspecification of 2010's bend points, then the projections are incorrect as well.

As is so often the case in the politics of Social Security reform, here as well as in other countries, benefit cuts are achieved by opaque formulas that most people likely will never see or understand. This saves politicians from saying that the way to fix Social Security is to cut benefits, even though that is exactly what most formulaic changes do.

- They recommend a new minimum benefit, 125 percent of the poverty line in 2017, for minimum-wage workers who have worked at least 30 years. The benefit would phase down for less than 30 but more than 10 years of work. This is somewhat of a welfare structure in that it separates—at least in part—benefits from wages for those who qualify.
- For those living 20 years longer than the earliest eligibility age, presently age 62, there would be a "benefit bump up" equal to 5 percent of the average benefit phased in at 1 percent over 5 years. The argument for this is "to better insure against the risk of outliving one's own retirement resources."¹⁹ Consider a median-wage male worker who retires at the normal retirement age in 2010. His first year's benefit is about \$19,974. Let's further assume that his benefit rises annually by Social Security's inflation assumption of 2.8 percent for the next 16 years. At age 82, the age of the bump up eligibility, his benefit would be \$31,071. The bump ups over the next five years would approximate \$311, \$639, \$986, \$1,352, and \$1,737.²⁰ Without the bump ups the benefit at age 87 would be about \$34,700. With the bump ups it would be about \$36,437. Helpful for sure, but not likely to insure "against the risk of outliving one's own retirement resources."
- The age at which one is eligible for full benefits would be increased from age 66 today to 69 by 2075. Early eligibility would increase from 62 today to 64 in 2075. Each age would then continue to increase with life expectancy. The effect of this is to increase the number of years one must pay payroll taxes to receive benefits over, on average, a constant number of years. It is the equivalent of a benefit cut, or a tax increase. This recommendation is silent on the wage-indexing factor at age 60 and thereafter. Presently, that factor is 1. If it remains at 1 up to the new (older) eligibility age, then less is gained in benefits from earned wages after age 60. Even now, added years of earnings that replace earlier years of lower earnings in the benefit formula may only raise benefits a small amount. The effect of this is that the marginal return on payroll taxes paid after age 60 is likely negative. As each eligible retirement age increases with life expectancy, the marginal return becomes more negative.

¹⁹ *Ibid*, p. 50.

²⁰ Author's calculations.

- The current wage subject to tax is \$106,800. As reported earlier, the 1950 wage was only \$3,000. Not only has the wage increased, but over the last 60 years the tax rate has increased from 3 to 10.6 percent. The product of the two, which is the OASI payroll tax, inflation adjusted, has increased by 1,322 percent. Under present law the wage subject to tax increases every year under reasonable assumptions, and would be \$168,000 in 2020. The Commission recommends increasing it even faster, so that in 2020 it would be \$190,000. This is another tax increase.
- Presently, some state and local workers are not subject to Social Security. That is a choice they made. The Commission would mandate that after 2020 newly hired workers would be required to be in Social Security. The unstated purpose of this is to increase revenues. But the Commission's language is quite different. It suggests that this would be in the workers' best interest because it would "simplify retirement planning," and ensure "a secure and predictable benefit check." This begs the question, "If it is so much in their best interest, why would the Commission make it mandatory?" Here's how they present their case.

Under current law, more than 90 percent of all workers are covered by Social Security, but a small share of states and localities exclude their employees from Social Security and instead maintain separate retirement systems. As states face a double hardship of prolonged fiscal challenges and an aging workforce, relying entirely on this pension model has become riskier for both government sponsors and for program participants, and a potential future bailout risk for the federal government. To mitigate this risk and to plan for an orderly transition to comprehensive Social Security coverage, the Commission proposes to mandate coverage for all state and local workers newly hired after 2020.

Full coverage will simplify retirement planning and benefit coordination for workers who spend part of their career working in state and local governments, and will ensure that all workers, regardless of employer, will retire with a secure and predictable benefit check. To improve the coordination of benefits for existing part-career state and local workers, the Commission also recommends requiring state and local pension plans to share data with Social Security.

- The Commission's last recommendation is perhaps the most insightful. Its complete text is presented here.

Individuals need more financial assets and less debt, especially for retirement. Social Security forms the first tier of support for retirement but was never intended to be the sole source of retirement income. Retirement security solutions need to recognize and incorporate the challenges for

self-reliant Americans who take responsibility for their families through a lifetime of work. Business owners and employees have historically negotiated over retirement benefits, and government employers face revenue challenges. Many private and public pension plans face serious underfunding of their long-term obligations.

A serious bipartisan conversation needs to take place regarding incentives to generate personal retirement savings that supplement Social Security and addresses the gap between what Americans need for retirement and what they currently have. Employers and employees can both play a role in strengthening the personal retirement savings of Americans. An ideal system should be open to all, portable, prevent leakage from high fees and early withdrawals and allow for pooled investments that can spread risk. It should encourage Americans to build wealth through savings and investment that will generate a return sufficient to allay fears that retirees will outlive their savings, and should permit Americans to have the option to transmit the remainder of their accumulated savings to their heirs. Americans need a fiscally responsible personal retirement savings system that is advanced funded, supplements the pay-as-you-go Social Security system, and accumulates funds for investments in business and infrastructure to help sustain a healthy economic growth rate.

Being lectured by politicians that individuals need less debt is beyond the pale of credulity given the massive debt with which they have saddled our nation. Yet, some of the language in this proposal should be seriously considered. Indeed, a later section of this paper addresses many of their points.

Summary Comment on the Commission's Recommendations

The main thrust of the Commission's recommendations is to remain with pay-as-you-go financing, raise taxes, cut benefits, and increase mandates. Their recommendations ignore the low rate of return of pay-as-you-go financing. They do not think through how to protect retirement saving and benefits from changing demographics.

In the era of modern finance, Social Security's financial structure is reminiscent of a Rube Goldberg contraption: humorously complex, and horribly inefficient. The Commission's recommendations add more complexity, and keep the government fully in charge-with even more power. The Commission exhibits a strange allegiance to the structure of Social Security, that it must be a program of social insurance, rather than to its goal, financial security and dignity in retirement for all. It seems to seek to save the means by sacrificing the end.

The Structure: Fundamentally Flawed From the Beginning

In his radio address on the third anniversary of the Social Security Act, August 15, 1938, President Roosevelt stated:

Five years ago the term "social security" was new to American ears. Today it has significance for more than forty million men and women workers whose applications for old-age insurance accounts have been received; this system is designed to assure them an income for life after old age retires them from their jobs.²¹

Having the government assure "them an income for life after old age retires them from their jobs" is the essence of social insurance, the crux of Social Security's financial troubles.

Insurance is designed for a condition where many people are subject to a risk that has little chance of happening to any single individual. A good example is homeowners' fire insurance. Many people buy fire insurance to protect their homes, yet few homes burn. Because the number of homes insured is many times the number that burn, the annual insurance premium is very low relative to the cost of rebuilding one's house. Insurance companies are simply the medium through which individual uncertainty of loss is transferred to, and financed by, the group.

The insurance model does not work well when the group is subject to a risk that the entire group experiences. For example, if it were certain that everybody's house would burn down, say, when the owners reached age 62, then insurance companies would have to charge annual premiums the future value of which would be the cost of rebuilding all the houses. This premium would be a large multiple of the premium charged in the prior case. Central to the insurance model is that the ratio of the annual premium to the dollar value of what it insures is positively correlated to the certainty of individual loss.

The word "social" in the term social insurance merely means that the government plays the role of the insurance company. Other than that, it's the insurance model.

The reason that insurance doesn't work well in providing retirement income is that once workers enter the labor force, say age 20 on average, it is almost certain they will reach age 62, the earliest age they can collect Social Security benefits. As a result, there is very little risk, or uncertainty, to transfer to—or be financed by—the group, resulting in the fact that annual premiums for all must be enough to accumulate to a sum, including interest, that will finance retirement income.

Under these assumptions social insurance cannot provide retirement income at a lower cost than saving and investing, and earning the market rate of return. Rather, it can only provide it at a higher cost because it is financed through the payroll tax, and is subject to the low Social Security rate of

²¹ See FDR's Statements on Social Security, No. 10, August 15, 1938, available at <http://www.ssa.gov/history/fdrstmts.html#liberal>.

return—the real increase in wages—and unyielding demographic forces. In a perverse way Social Security's insurance model is caught in a kind of time warp; it's a 78 RPM wind-up phonograph in the age of the iPod. Unless protected by the state, it can neither compete nor survive. That, simply, is why it is mandatory. To escape the time warp Social Security should transition from the social insurance model to a market-based structure.

The Market-Based Alternative

Any state-mandated retirement system should be guided by three principles.

1. The elderly should be able to retire with financial security and dignity.
2. Younger workers should be able to keep more of the fruits of their labor.
3. The economy should not be unnecessarily or unreasonably burdened by achieving the first two principles.²²

Collectively, these principles lead to a system fundamentally different from Social Security's PAYG structure, but not different from its goal. Here's how it would work.

First of all, no one presently working or retired would be required to leave Social Security for the market-based system. But if one wished to try for a better return, part of their OASI payroll tax would be saved and invested in capital markets. The remainder would still go to the government to help finance benefits for those who stay with Social Security.

The saving from the people participating in the market-based system would be invested in one of three diversified balanced funds comprised of stocks, bonds and cash. The components of the three funds would be the same, but the weighting would differ. For younger workers there would be a fund weighted more in stocks; for older workers the weighting would be more in bonds. This aged-based weighting is common in the investment industry. For those who know nothing about investing, all they need to know is their age, and pick the fund designed for their age.

Upon retirement, their accumulated wealth would purchase an annuity to insure that the retiree would not outlive his retirement savings. The remaining wealth could be withdrawn on a scheduled basis, or used in any manner the owner wished.

The following example provides some indication of how the worker might fare under this system, and the risks that he may face. His outcome is compared to Social Security.

²² See Marshall N. Carter & William G. Shipman, *Promises To Keep: Saving Social Security's Dream*, (Washington: Regnery Publishing, Inc., 1996), p. 8.

A male worker retiring at age 66 in 2010, who earned median wages his entire career, would receive about \$19,970 from Social Security. This annual benefit would increase with inflation for his life expectancy of about 18 years until age 84. (Any particular individual may live longer or shorter than 18 years which is only the average for the 66 year cohort in 2010.)

Let's assume that this same worker saved and invested the same amount he paid in OASI taxes during his entire working career. Let's further assume he invested his saving in a portfolio of 70/30 percent stocks and bonds, respectively.

When he started his career in 1966 at age 21 he earned \$6,856, the median wage that year. The OASI tax rate for self-employed workers was 5.275 percent, so he saved and invested only \$362. As his wage increased he saved the OASI tax applicable each year in the same portfolio until age 56 when he shifted to the 50/50 mix.

At the end of 2010 he had a portfolio of \$820,000. He then calculated what he could withdraw from the portfolio each year, under several scenarios. First he calculated his annual withdrawals, including an annual inflation assumption of 3 percent, for the next 18 years, equal to his life expectancy. This would match the average length of benefits for a Social Security recipient in his cohort. He didn't know what future market returns would be so he assumed a conservative return of 4.5 percent. Based on these assumptions he could withdraw about \$49,930 in 2011, about 2.35 times his Social Security benefit, and continue to do so for the next 17 years.

This withdrawal rate incurs significant longevity risk, however, for he may live longer than 84. Suppose, as a second option, he limited his withdrawal to the initial benefit he would have had under Social Security, and increased each year for inflation. In that case the portfolio wouldn't be exhausted until he reached the age of 120.

A third calculation reveals that he could withdraw \$31,550 the first year, increase it at 3 percent annually, and not exhaust his wealth until age 95. The main point is that the market-based system provides greater benefits at the same cost, and provides options. One significant option is that he can bequeath assets that remain upon his death.

Even though the market-based benefits in this case are much higher than Social Security's, 2010 was not a particularly good year to retire because of the 2008 stock market crash. Also, the average annual return for the ten years ending 2010 was the 4th worst decade for the U.S. stock market since the one ending in 1935. Because average annual returns differ over time, and because the pattern of returns matters greatly, a market-based system will provide different outcomes depending on the year one retires. For instance, a worker who retired before the market collapse of 2008 would have more retirement income than a worker who retired just one year later. Some may consider this unfair, and may advocate that outcomes should be smoothed. However, this misses the more important point which is comparing benefits from the market-based system to those from Social Security. In almost

all cases wherein there are historical market data, Social Security fares worse.²³ Note, too, that Social Security is not without risk; benefits and payroll taxes can, have, and will be changed by Congress. And, in most all cases not in one's favor as the Commission's recommendations confirm.

Objections to the Market-Based System and Responses

This section provides many objections to the market-based system, and offers responses.

1. People won't save so they'll never accumulate enough assets on which to retire.

The saving is deducted from one's paycheck just like payroll taxes are. If you choose the market alternative, you have no choice, the saving is mandatory.

2. Most people know little about investments. They'll make foolish decisions.

The investment decisions are determined by a board of trustees which oversees the system. The board determines the component parts of the balanced funds, their weights, and the investment managers. The only decision the worker makes is which of the three balanced funds he chooses. They are age-based funds, so all the worker needs to know is his age.

3. The system would charge high fees which would deduct from the annual return.

It's true that fees would deduct from returns, but the fees would range between 19 and 34 basis points (one fifth to a third of one percent) of assets.²⁴ This range of fees is well below average mutual fund or 401(k) plan costs. The market-based example above is net of fees of 35 basis points.

4. Workers will outlive their assets.

Workers would be required to purchase an annuity, guaranteeing an annual benefit at a minimum support level for the duration of one's life. Assets in excess of the amount needed for this minimum level could be withdrawn under alternative schedules or left for heirs, as the retirees wish.

5. Spouses would be left without anything upon divorce.

Upon marriage one's saving is divided in two, one half going to the worker, one half to the spouse. Each spouse, therefore, has an account with assets as of the first paycheck after marriage. These assets

²³ See Melissa Hieger and William Shipman, "Common Objections to a Market-Based Social Security System: A Response," Cato Institute Social Security Paper no. 10, July 22, 1997.

²⁴ William G. Shipman, "Administrative Challenges Facing a Market-Based Social Security System," Testimony before the House Budget Committee Task Force on Social Security, April 27, 1999.

are the personal property of each. Upon divorce the assets go with each. Under Social Security law, marriage must last at least 10 years before one has a claim to spousal benefits.

6. Survivors would be left with little upon the wage-earners death.

The term survivor, as used by Social Security, refers primarily to a surviving spouse and surviving children of deceased parents. In 2009 there were a total of 42.8 million OASI beneficiaries, 84 percent of whom were retired workers and their spouses, 4.5 percent were surviving children.

Under today's law Social Security pays benefits to a worker based on his wage history, and a benefit to his spouse even if she has no wage history. Her benefit at the normal retirement age is 50 percent of his. The total family benefit, assuming his is \$1,000 a month, therefore would be \$1,500. Upon his death the family benefit drops to \$1,000, and is called a survivor's benefit. The market-based system treats death differently: there is no reduction in benefits because of death.

Under Social Security, unmarried children up to the age of 19²⁵ may be eligible to receive benefits upon the death of their parent(s). The market-based system may, or may not, provide higher benefits than Social Security. If parents died when the child was 17, accumulated assets would most likely be significantly greater than survivor's benefits.

But the tragic case is the death of parents of very young children. The market-based system would not be able to provide equivalent survivor's benefits because not enough saving, investing and time have occurred. In these cases, benefits should be provided through general revenues. Alternatively, participants in the market system could be required to purchase term life insurance of suitable size. Premiums for young parents are modest.

A Brief Comment on Language

Recall President Roosevelt's words in his 1938 radio address.

Five years ago the term "social security" was new to American ears. Today it has significance for more than forty million men and women workers whose applications for old-age insurance accounts have been received; this system is designed to assure them an income for life after old age retires them from their jobs.

This sounds like more than 40 million workers filed applications for insurance by 1938, much like people today may voluntarily apply for annuity insurance to "assure them an income for life" after they retire. It sounds impressive for a program in its infancy.

²⁵ Actually, children under 18 except for those in elementary or secondary school at age 19.

The reality is different. Under the Federal Insurance and Contributions Act of 1935 (Social Security), no monthly benefits were payable until 1942. No applications were filed for benefits in or prior to 1938. The president was most assuredly referring to the number of people paying the payroll tax as required by law.

This language slight-of-hand is common in the history of Social Security. Taxes are called contributions. Compulsory is voluntary. Already spent money is called a trust fund. A compulsory intergenerational transfer system is called insurance. The Commission has followed suit. Recall that forcing state and local workers into the system is advocated because it would "simplify retirement planning and benefit coordination."

Language matters, and few have used it more deftly and furtively than some supporters of Social Security.

What Must Be Protected From What?

This is the question that was asked at the beginning of the paper. The answer is uncomplicated. Social Security's goal must be protected from its structure.

Social Security should be analyzed from these two separate perspectives. Under present law, the structure makes the goal unattainable for it is virtually impossible to provide reasonable benefits at a justifiable cost. Only in an imaginary world, where costs are not material, would this not matter. Specify the goal, and then arrive at the most efficient structure. For decades the structure has been protected at the expense of the goal. This makes no sense, and is hurtful to retirees, workers, and the economy. The National Commission on Fiscal Responsibility and Reform has continued the error, all wrapped up in mellifluous patois.

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