



JOINT ECONOMIC COMMITTEE

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Understanding Progressive Indexing

Social Security has a large structural deficit, estimated to be \$3.7 trillion in present-value terms for the next 75 years or \$11.1 trillion if we estimate the shortfall over the infinite horizon.¹ Naturally, estimating a cash flow encompassing such a long time frame is far from precise; any number of events over the coming decades could change the true figure. Indeed, some opponents of Social Security reform have concluded that a more optimistic (and realistic, they argue) estimate of future economic growth than that used by the Social Security Administration would give a more sanguine picture of the health of the system.

However, assuming that a strong economy over the coming decades can erase Social Security's structural deficit is a mistake. The way that Social Security adjusts for the vagaries of inflation simply preclude economic growth from erasing Social Security's long-term structural deficit.

Social Security's fundamental financial problem is that benefits increase with economic growth. The link between economic growth and benefits comes from how Social Security deals with the effects of inflation. The adjustments made to protect current and new retirees from inflation actually cause benefits to grow faster than inflation. Those who argue that strong economic growth in the future will erase Social Security's projected deficits ignore this irrefutable linkage.

This report details how Social Security adjusts initial and existing benefits for the effects of inflation, identifies the reasons for the upward bias in the inflation adjustments, and proposes a remedy that improves Social Security's long-term solvency. A carefully crafted reform could reduce the steady growth in real, inflation-adjusted Social Security benefits while protecting low-wage households, eventually erasing most of Social Security's long-run structural deficit.

SSA over compensates for inflation

Social Security benefits are quite progressive. When a worker turns 60, SSA averages his highest 35 years of earnings to determine a preliminary final benefit for retirement. Workers receive benefits equal to 90% of the first \$7524 of average earnings. For the next \$38,000 of earnings, workers receive only 32% back in benefits². Workers receive only 15% in benefits for any income above that, with a maximum benefit of \$2,000 per

¹ *Social Security Annual Trustees Report 2005*, pp58-59. <http://www.ssa.gov/OACT/TR/TR04/tr04.pdf>

² The benefit formula is set by statute, and the cutoffs are adjusted each year to reflect inflation.

person per month³. Thus, the difference in benefits between high-wage and low-wage workers is much less than the difference in lifetime earnings⁴.

Since prices have increased considerably over the past few decades, each worker's wage history must be adjusted for the effects of inflation when calculating initial benefits. If not, initial benefits would be kept low by the relatively low earnings from the past, when prices were lower. Also, workers who had their high earning years early in their career would be penalized relative to workers whose best years came at the end of their career.

An example illustrates how to adjust wages for inflation. Suppose you wanted to compare your salary today to your father's \$20,000 income in 1970. Since a dollar today buys much less than a dollar in 1970, we must express his income in today's dollars. For instance, if the price of a car (or a bicycle, or some representative basket of goods and services) were five times higher today than in 1970 we would need to multiply your father's salary by five to compare it fairly to your own salary today.

The way this is typically done is to increase your father's salary by the cumulative effects of inflation during the intervening years. With a spreadsheet and a measure of inflation, the calculation is straightforward: To buy the same amount of goods and services today that \$20,000 could buy in 1970 your father would need to earn \$97,454.⁵

However, this is *not* what Social Security does when it adjusts a worker's lifetime of earnings to reflect prices today. Instead, it uses a measure of *wage growth* to adjust prior year's earnings. On average, wages outpace inflation by about one percent per year, reflecting the fact that our standard of living has grown over time. If we adjust your father's wages by overall wage growth instead of price growth, his adjusted earnings are now \$119,000. In this example, the \$119,000 represents what would be needed today to have the same *relative earnings* that your father had in 1970. That is, if \$20,000 represented the cutoff for the top ten percent of earnings in 1970, then \$119,000 would be its approximate equivalent today.

From our example we can see that over the past 35 years prices have quintupled while wages have sextupled. Put differently, inflation-adjusted wages have gone up roughly 20 percent over the period—the approximate difference between the \$119,000 and the \$97,000. In essence, Social Security calculates initial benefits assuming that your father made 20 percent more in 1970 than he really did.

Wage indexation causes inflation-adjusted benefits to increase over time

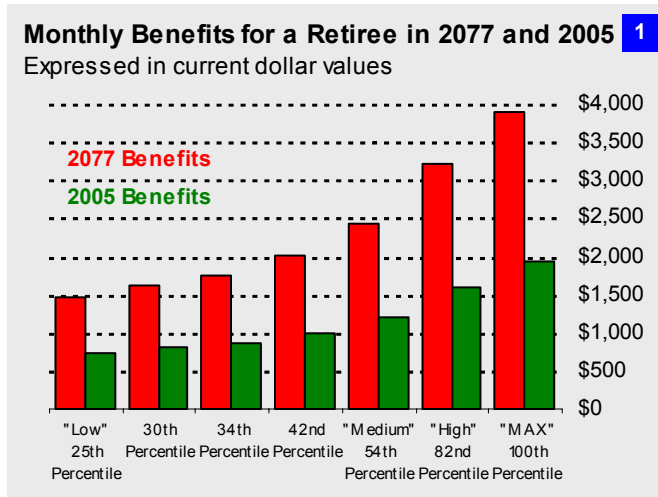
The result of indexing initial Social Security benefits to wage growth is that the real, (i.e. inflation-adjusted) benefits grow over time. The later a person is born, the higher his real

³ If a worker continues to earn beyond the age of 60 he can still increase his average salary for benefit purposes; SSA simply replaces one of his early years with the higher wages earned after the age of 60.

⁴ The fact that higher-income workers tend to live for more years after retirement than low income workers lessens this progressivity somewhat.

⁵ An extremely easy-to-use inflation calculator can be found at www.bls.gov.

Social Security benefits will be. In other words, if your average wage matched your father's, the *real value* of your Social Security benefits would be higher than your father's simply because you were born later. Figure one illustrates the inflation-adjusted increase in benefits over the next 75 years. The difference is enormous; over a lifetime we see that inflation-adjusted benefits **double**.



Why does Social Security adjust earnings using wage growth when calculating initial benefits? Two reasons are generally given. When President Ford proposed an indexation of initial benefits 1976, he indexed to wages in part for political expediency and also because some felt that it was possible that wages would *not* outpace inflation for the next generation. When he first proposed indexing benefits to wage growth, President Ford acknowledged that it

was indeed possible that it would create an unaffordable increase in benefits that future leaders would have to address.

Defenders of wage indexation favor it because without it, initial benefits would begin to lag wages and make retirees relying solely on Social Security feel increasingly poor compared to everyone else. As it currently stands the average monthly benefit replaces roughly 40 percent of annual earnings. As long as initial benefits are indexed to wage growth this ratio remains roughly the same. However, if we were to index initial benefits to inflation that ratio would decline, and in 2077 be half of what it is today.

Social Security's *other* indexation problem

Social Security recipients would *not* see their benefits actually shrink if initial benefits were tied to prices instead of wages. Besides the adjustment of workers' annual earnings in the calculation of initial benefits, Social Security also increases the benefits of *current* benefit recipients each year to adjust for inflation. This adjustment is done using a measure of price inflation, so that the amount of goods and services a retiree can buy with his benefits remains the same from year to year.

In fact, price indexation undoubtedly results in a gradual increase in the real value of Social Security benefits. Most economists believe that the Consumer Price Index overstates the true rate of inflation. A study in the late 1990s by Michael Boskin, former head of the Council of Economic Advisors under President Ronald Reagan, estimated that the CPI overestimated inflation by about one percentage point. Since that time the Bureau of Labor Statistics has taken some minor steps to reduce the bias, but the bulk of the bias remains.

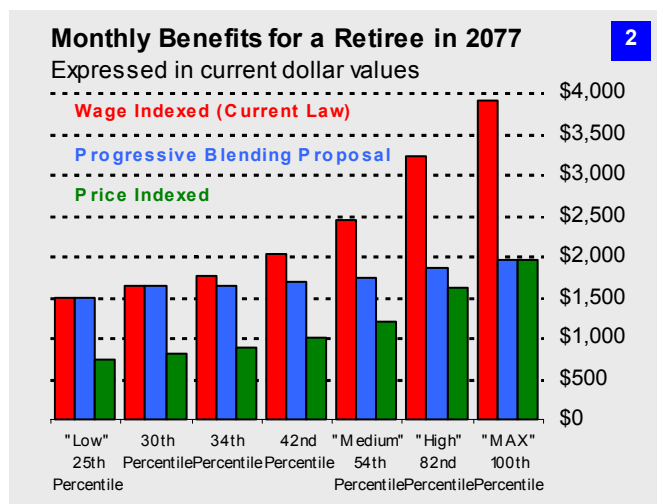
Fully reducing the bias in the measurement of inflation would improve Social Security's solvency. For instance, one reform proposal would use a newer measure of inflation called the Superlative Index, established by the Bureau of Labor Statistics. Such a change would erase roughly 30 percent of the Social Security's long-term structural deficit.

Indexing initial benefits to a blend of wage and price indexation

Indexing initial benefits is not necessarily an either/or choice between wage growth and price inflation. One method of indexing initial benefits being championed by Democratic financial executive Robert Pozen would continue to use wage inflation to index the lifetime earnings of the bottom 30 percent of the wage distribution. For households with average earnings above the 30th percentile, their wages would be indexed with a combination of wage and price indexation, with the mix dependent upon where they are in the income distribution. For someone in the top of the income distribution, their earnings would be indexed by a measure of price inflation alone. Senator Robert F. Bennett has championed a version of this proposal as part of a broader Social Security reform package.

To give an example of how blended indexation works, someone just entering the labor force with average annual earnings in the 40th percentile over whose lifetime wages increased by four percent a year while prices increased by three percent (both of which are in line with long run SSA forecasts) would see their wages adjusted upward by an average of 3.8 percent when SSA calculates initial benefits at age 59½. Someone in the 60th percentile would see an adjustment of only 3.25 percent, reflecting his higher earnings, while someone in the top of the wage distribution would have their wages adjusted by the three percent average annual increase in prices.

Figure Two illustrates the effect of blended wage and price indexation of initial benefits once such a change is fully phased in. Under one variant of progressive indexation, the



indexation change would apply solely for workers below the age of 55 and would be phased in over 50 years in order to avoid any replication of the "notch-baby" problem. Thus, a worker who is 50 years old today would see a very small change in the system, since nearly all of his earnings would have taken place before the change. *After 50 years all workers could be indexed to the same deflator to ensure that benefits remain tied to income (and the amount of payroll taxes paid.)*

Blended indexation has three distinct advantages: First, low-wage workers would be held harmless from any indexation changes. Under such a system, benefits would continue to replace roughly 40 percent of average wages, as is the case today. Second, the progressivity of benefits would increase significantly under such a change—the additional benefits that workers would receive for higher wages, already low today, would be significantly smaller under a regime of blended indexation. The difference in life expectancies between high-income and low income retirees would mitigate some of the progressivity.

Perhaps the most important benefit of moving to a system of blended indexation is that such a move removes the link between economic growth and benefit growth. Under our current system it is virtually impossible for economic growth to fill the Social Security shortfall because as the economy grows, benefits increase as well at nearly the same rate as tax revenue. Those who insist that solid economic growth can achieve solvency are simply ignoring arithmetic realities.

A gradual implementation of blended indexation of initial benefits would solve roughly three-fourths Social Security's long-term deficit, according to Steve Goss, the chief actuary for the Social Security Administration. Combining the blending of wage and price indexation of initial benefits with a reform of the measure of inflation used to adjust existing benefits for the effects of inflation would come close to solving the entire 75 year funding gap.

The Increasing Pressures on Social Security

The Social Security system is currently generating a substantial revenue surplus, but as the baby boomers start retiring the surplus starts to shrink, and by 2018 the system is running a deficit. Simultaneously increasing the number of retirees per worker *and* the inflation-adjusted benefits going to each retiree would put an unprecedented strain on the system and require substantial reform. Given that we cannot do anything about demographics, constraining the inflation-adjusted increases in benefits for high-wage earners is a logical place to turn to ensure future solvency.