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THE IMPACT OF INFLATION ON SOCIAL SECURITY BENEFITS

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Introduction

Today, the Social Security Administration announced that benefits payable in December 2008 would be increased 5.8 percent beginning January 1, 2009. This cost-of-living-adjustment (COLA) – the largest in 26 years – is an important reminder that keeping pace with inflation is one of the attributes that makes Social Security benefits such a unique source of income. (The other is that the payments continue for life.) Higher inflation raises two other issues, however, that diminish the impact of the COLA. The first issue pertains to Medicare Part B premiums, which are deducted automatically from Social Security benefits. To the extent that premium costs rise faster than the COLA, the *net* benefit will not keep pace with inflation. Historically, premiums have gone up much faster than the COLA, although this year is an exception as premiums for 2009 will be unchanged from their current level.[1] The second issue pertains to taxation under the personal income tax. Because the thresholds ($25,000 for single taxpayers and $32,000 for joint returns) above which taxes are levied are not adjusted for wage growth or even for inflation, rising benefit levels mean that taxation reaches further and further down the income distribution.

This *brief* explores the interaction of inflation and Social Security benefits. The first section describes the nature of the cost-of-living adjustment. The second section looks at the interaction of Medicare premiums and the cost-of-living adjustment. The third section explores how inflation affects the taxation of benefits. The final section concludes.

The overall finding is that, while the inflation adjustment in Social Security is extremely valuable, the rise in Medicare premiums and the extension of taxation under the personal income tax mitigate the ability of beneficiaries to maintain their purchasing power. This erosion of retiree purchasing power is serious given that virtually all other sources of retirement income have no inflation protection at all.

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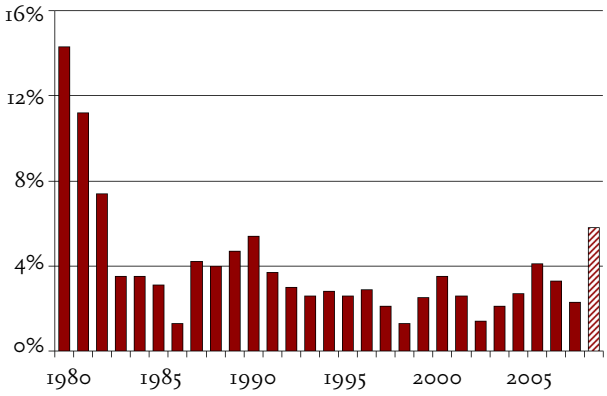
Social Security's Cost-of-Living Adjustment

Social Security benefits are subject each year to a cost-of-living adjustment (COLA).[2] The adjustment, which is based on the change in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) over the last year, protects beneficiaries against the effects of inflation.

Since the COLA first affects benefits paid after January 1, Social Security needs to have figures available before the end of the year. As a result, the adjustment for January 1, 2009 is based on the increase in the CPI for the third quarter of 2008 over the third quarter of 2007. This calculation produces a COLA of 5.8 percent, the largest since 1982 (see Figure 1).

Automatic indexing is generally viewed as a positive feature of social security systems, both in the United States and abroad. Without such automatic adjustments, the government would have to make frequent changes to benefits to prevent retirees' standard of living from eroding as they age.[3]

Figure 1. Social Security Cost-of-Living Adjustment, 1980-2008



Sources: U.S. Social Security Administration (2008a); and U.S. Bureau of Labor Statistics (2008).

Box 1. What's the Right Price Index?

The only controversy that sometimes arises with respect to the adjustment is the nature of the index used. Social Security bases its adjustment on the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W), which is a subset of the population covered by the Consumer Price Index for All Urban Consumers (CPI-U).[4] Some contend that since the CPI-W does not represent the price changes faced by retirees, another index should be used. In 1987, Congress directed the Bureau of Labor Statistics to calculate a separate price index for the elderly (persons 62 and older). This index, called the CPI-E, has been constructed back to 1982. Over the period 1982-2007, the average annual increase for the CPI-E was 3.3 percent, compared to 3.0 percent for the CPI-W. The index rose faster for older Americans than for their younger counterparts because older people devote a larger share of their budgets to medical care (10.8 percent versus 5.3 percent) and shelter (36.9 percent versus 30.2 percent), and the cost of these items rose faster than prices in general.[5]

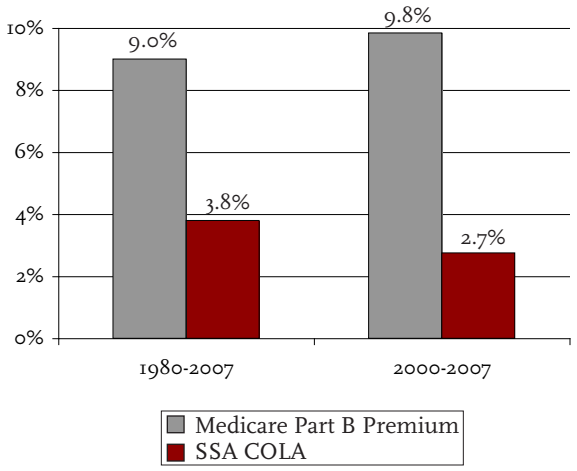
The results from the CPI-E need to be interpreted with caution, because it is not constructed from scratch but rather is derived from the CPI-U. As a result, it suffers from several flaws. First, a relatively small number of households is used to determine the expenditure patterns, so the weights are subject to much greater sampling error than those in the broad index. Second, prices are based on the same geographic areas and retail outlets used by younger people and may not be representative of the location and types of stores frequented by the older population. Third, the items sampled may not be the same as those bought by the elderly. Finally, the prices used are the same as those reported for younger people and do not reflect any type of senior discounts. Thus, if the decision were made to employ an index for the elderly, a new index would be needed that used a larger sample of older households and gathered prices for the products that older people buy at the places they shop.

How Medicare Premiums Affect the Outcome

Medicare premiums for Part B (physician and outpatient services) and Part D (prescription drugs) are deducted from Social Security benefits before they are sent to the recipient.[6] Typically, the Medicare Part B premium is increased each year in line with Part B per capita expenditures.[7]

Although the 2009 Part B premium will remain unchanged from its 2008 level, over the past three decades the average annual adjustment for the Part B premium has been 9.0 percent compared to an average annual Social Security COLA of 3.8 percent; since 2000, the comparable numbers have been 9.8 percent and 2.7 percent (see Figure 2).

Figure 2. Average Social Security Cost-of- Living Adjustment and Annual Increase in Medicare Part B Premium, 1980-2007 and 2000-2007

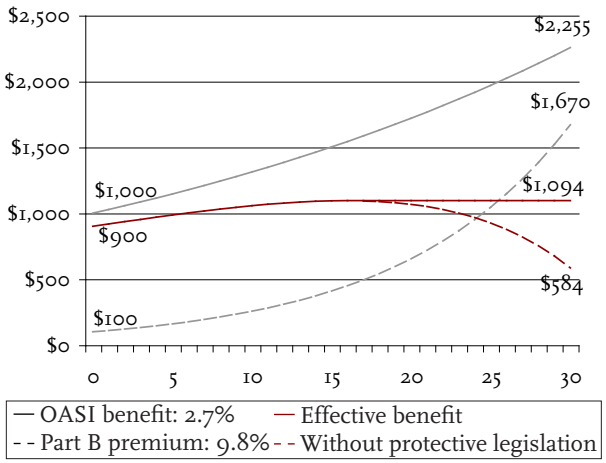


Sources: U.S. Social Security Administration (2008a); and Centers for Medicare and Medicaid Services (2008b).

To see the impact of the rapidly rising Medicare premium, assume that the average benefit is about $1,000 per month and the Medicare Part B premium is $100, so the beneficiary receives a *net* benefit of $900 to spend on non-health items, such as food, shelter, and clothing. Assuming the average annual increases in the two amounts over the period 2000-2007, in 2008 the benefit would increase to $1027 and the Medicare premium to $109.80. (As stated before, 2008 is unusual in that the Social Security COLA is 5.8 percent while the Medicare Part B premium remains unchanged). As a result, the beneficiary would receive a *net* benefit of $917.20 ($1027-$109.80), or 1.9 percent more than the original $900. Thus, the increase in the Medicare premium offsets some of the cost-of-living adjustment on the *net* benefit.

Figure 3 shows what happens if this process were to continue for 30 years. During the first ten years, the $900 *net* benefit grows at an average annual rate of 1.6 percent. During the second ten years, the *net* benefit would continue to grow until year 16 and then would start to decline, and the decline would continue throughout the third ten-year period.[8] Legislation, however, prevents nominal benefits from declining. Specifically, section 1839(f) of the Act ensures that the dollar value increases in the premium for current beneficiaries do not exceed the dollar value of the annual Social Security cost-of-living adjustment.

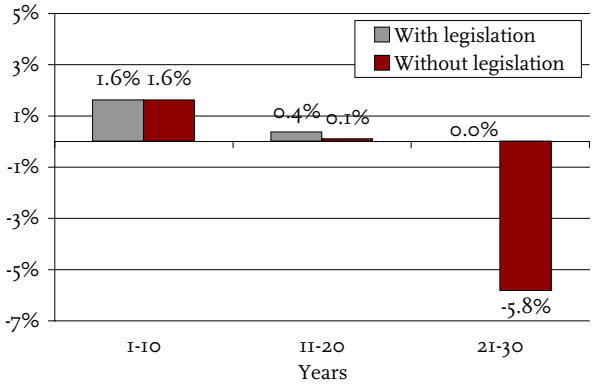
Figure 3. Hypothetical Growth of OASI Benefit of $1000 and Part B Premium of $100 and Path of Net Benefit, with and without Protective Legislation



Sources: Authors' calculations based on U.S. Social Security Administration (2008a); and Centers for Medicare and Medicaid Services (2008b).

Figure 4 on the next page shows what the change in the *net* benefit would be with and without the protective provision. Although the provision prevents dollar declines in the *net* benefits, beneficiaries still experience erosion in the real purchasing power of their *net* benefit.

Figure 4. Hypothetical Annual Growth Rates of Net OASI Benefits over a 30-Year Horizon



Note: Figure assumes an OASI benefit of $1000 in year 0 that grows annually at 2.7 percent and a Medicare Part B premium of $100 in year 0 that grows annually at 9.8 percent. The *net* benefit for each year is the difference between the two.
Sources: Authors' calculations based on U.S. Social Security Administration (2008a); and Centers for Medicare and Medicaid Services (2008b).

The Impact of Taxes on Social Security Benefits

The other way that inflation affects Social Security benefits is through the federal personal income tax. Under current law, individuals with less than $25,000 and married couples filing jointly with less than $32,000 of "combined income" do not have to pay taxes on their Social Security benefits (see Table 2 on the next page).[9] Above those thresholds, recipients must pay taxes on up to 85 percent of their benefits.

Today, about 30 percent of people who receive Social Security have to pay taxes on their benefits, so the beneficiary at 65 with a history of medium earnings – and thus about $15,700 of Social Security benefits – probably does not pay any taxes on benefits. But the thresholds are not indexed for growth in average wages or even for inflation, so in the future a significantly higher percentage of recipients will be subject

BOX 2. Income-Related Premiums for Part B

Between 2007 and 2009, the Medicare program is transitioning to income-related Part B premiums (see Table 1). Thus while most Part B enrollees will see no increase in their premium in 2009, high-income people will see a sizeable one. For example, persons with income in excess of $213,000 who had the Social Security maximum benefit of about $2,000 per month at age 65 in 2008 and received the COLA of 5.8 percent, or $116, would see their monthly benefit increase by only $46 for an effective adjustment of 2.3 percent as their Medicare Part B premium went up almost $70 ($308.30-$238.40). After 2009, the income-related Part B premiums will increase at the same rate as the base premium and high-income people will be protected from declines in their nominal benefit as a result of increases in Medicare Part B premiums. This protection will be particularly valuable given the large base to which the annual increases in the Part B premium will apply.

Table 1. Income-Related Premiums for Part B

Year	Income thresholds (for 2009)				
	Less than $85,000	$85,000-$107,000	$107,000-$160,000	$160,000-$213,000	Over $213,000
2008	$96.40	$122.20	$160.90	$199.70	$238.40
2009	96.40	134.90	192.70	250.50	308.30
2010 and later	Standard premium	1.4 x standard premium	2.0 x standard premium	2.6 x standard premium	3.2 x standard premium

Note: This provision was effective in 2007. The amount of the Part B premium above the standard premium will be phased in at 33, 67, and 100 percent for 2007 to 2009 and later. The income thresholds are indexed to the CPI. The thresholds shown are for beneficiaries filing tax returns as individuals; the thresholds for couples filing jointly are twice these amounts.
Sources: Centers for Medicare and Medicaid Services (2008a and 2008c).

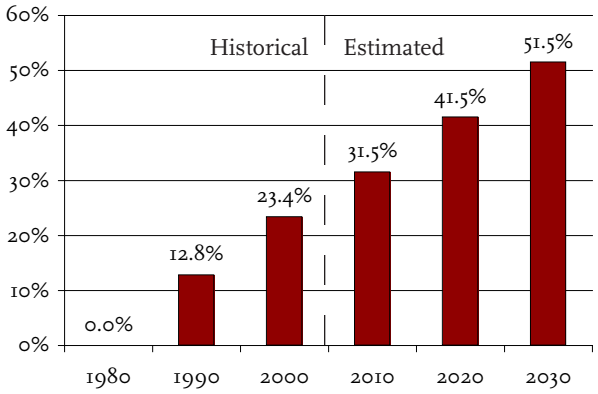
Table 2. Percent of Social Security Benefits Subject to Personal Income Taxation

Family type	"Combined" income limits	Percent
Individual	Less than 25,000	0%
	$25,000-$34,000	50
	Above $34,000	85
Couple	Less than 32,000	0
	$32,000-$44,000	50
	Above $44,000	85

Source: U.S. Social Security Administration (2008b).

to tax (see Figure 5). By 2030, the Social Security benefit for the worker with a history of medium earnings will more than double to about $34,100. Assuming other income increases similarly, many medium earners will pay tax on half of their benefits.

Figure 5. Percentage of Social Security Recipients Paying Income Tax on Their Benefits, 1980-2030



Note: Legislation introduced in 1983 created a provision for the taxation of Social Security benefits. Estimates for 2010-2030 were linearly extrapolated based on data from 1990-2006.
Sources: Authors' calculations based on Parisi and Strudler (2007); Internal Revenue Service (2007, 2008); and U.S. Social Security Administration (2008c).

Conclusion

Social Security is an extremely valuable source of retirement income. It is payable for life and benefits are adjusted to keep pace with inflation. The 5.8 percent COLA announced for 2008 highlights the importance of the automatic indexing provision.

However, two factors undermine much of the inflation protection offered by Social Security. First, in most years, increasing Medicare premiums mean that a larger and larger chunk of the benefit goes to health insurance, so the *net* benefit available for non-health expenditures does not keep pace with inflation. In the future, without the protective legislation in place, benefits would actually decrease for many after retirement. With the protective legislation, the nominal benefits remain at least constant, but their purchasing power will be eroded by inflation. Second, a personal income tax with unindexed thresholds for benefit taxation means that wage growth and inflation will subject an increasing portion of the income distribution to taxation. Taxation further reduces the *net* benefit that people will receive.

In short, even Social Security does not fully insulate older households from the erosive impact of inflation and this is a serious concern given that other sources of retirement income offer virtually no inflation protection.

Endnotes

1 This situation does not imply that total medical costs will not increase in 2009. Under current legislation, the Part B premium is typically set to cover 25 percent of the estimated average Part B per capita expenditure. This year, however, a reduction in the premium "margin" needed to sustain adequate levels in Part B's contingency reserve has offset some of the increasing costs of Medicare, which mainly accounts for the lack of increase in the premium (Centers for Medicare and Medicaid Services, 2008a).

2 In calculating initial benefits, past earnings are indexed not to inflation but to past earnings in the economy so that Social Security benefits keep pace with wage growth over time and the replacement rate (benefits as a percent of pre-retirement earnings) remains stable.

3 Indeed, this was the case with the U.S. Social Security program from its origin until 1975 when automatic indexing was adopted.

4 The CPI-U reflects the spending habits of about 87 percent of the population and the CPI-W 32 percent. Interestingly, despite its use for Social Security indexing, the CPI-W explicitly excludes older Americans. (Stewart 2008).

5 Stewart (2008).

6 Part D enrollees may elect to waive this deduction and pay their premiums via other mechanisms.

7 At the inception of Medicare in 1966, the Part B premium was set to cover 50 percent of the per capita costs of the program. Legislation in 1972 linked increases in the Part B premium to Social Security's annual cost-of-living adjustment. In several years during the 1980s, Congress overruled this legislation and voted to make the Part B premium 25 percent of the per capita costs of the program. In the early 1990s, the Omnibus Budget Reconciliation Acts of 1990 and 1993 set the premium at 25 percent of the program's costs through 1998. Finally, the Balanced Budget Act of 1997 permanently set the Part B premium at 25 percent of the program's per capita costs. See O'Sullivan (2004) for a more detailed history of the Part B premium.

8 However, this exercise is not likely to materialize since the relationship between the Social Security COLA and increases in Part B premiums is unlikely to remain constant over time. Rather, increases in Part B premiums and other medical costs should lead to an increase in the COLA.

In a perfectly indexed world, medical care's relative importance in the index would rebalance each year based on how many dollars were spent on medical care. If medical costs continued to grow at a much faster pace than prices of other goods, medical care would account for a larger fraction of all goods purchased. This, in turn, would cause growth in medical costs to have a larger impact on the growth of the index, or the price of all goods purchased. Suppose we want to create an index from a situation where a person spends a total of Y_t dollars on n goods in each period t. Let $X_{i,t}$ be the amount of dollars spent on good i in period t. Then good $X_{i,t}$'s relative importance is:

$\frac{X_{i,t}}{\sum_{i=1}^{n} X_{i,t}} = \frac{X_{i,t}}{Y_t}$, and growth from Y_t to Y_{t+1} equals:

$$\frac{Y_{t+1}}{Y_t} = \sum_{i=1}^{n} \left(\frac{X_{i,t+1}}{X_{i,t}} * \frac{X_{i,t}}{Y_t} \right),$$

which is the sum across all goods of each good's growth rate times its relative importance. So as the price of any good, X_i, goes up faster than other goods, its relative importance increases, and it has a larger effect on the index as a whole.

9 Combined income is adjusted gross income as reported on tax forms plus nontaxable interest income plus one half of Social Security benefits.

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