CENTER for RETIREMENT RESEARCH at BOSTON COLLEGE

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THE IMPACT OF INFLATION ON SOCIAL SECURITY BENEFITS

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Introduction

This fall, the U.S. Social Security Administration is likely to announce that benefits will be increased by around 6 percent beginning January 1, 2022. This cost-of-living-adjustment (COLA), which would be the largest in 40 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 retirement income.

A spurt in inflation, however, affects two other factors that determine the net amount that retirees receive from Social Security. The first is the Medicare premiums for Part B, which are deducted automatically from Social Security benefits. To the extent that premiums rise faster than the COLA, the *net* benefit will not keep pace with inflation. The second issue pertains to taxation under the personal income tax. Because taxes are levied on Social Security benefits only for households with income above certain thresholds ($25,000 for single taxpayers and $32,000 for joint returns) and the thresholds are not adjusted for wage growth or inflation, rising benefit levels subject more benefits to taxation – again reducing the *net* benefit.

This *brief* explores the interaction of inflation and Social Security benefits. The first section describes the nature of the COLA. The second section looks at the interaction of Medicare premiums and the COLA. The third section explores how inflation affects the taxation of benefits. The final section concludes 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 limits the ability of beneficiaries to fully maintain their purchasing power.

Social Security's COLA

Social Security benefits are subject each year to a COLA.[1] This adjustment, 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. 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.[2]

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, 2022 will be based on the increase in the CPI for the third quarter of 2021 over the third quarter of 2020. Given the recent rise in inflation, this year's COLA will likely be the highest in four decades (see Figure 1 on the next page).

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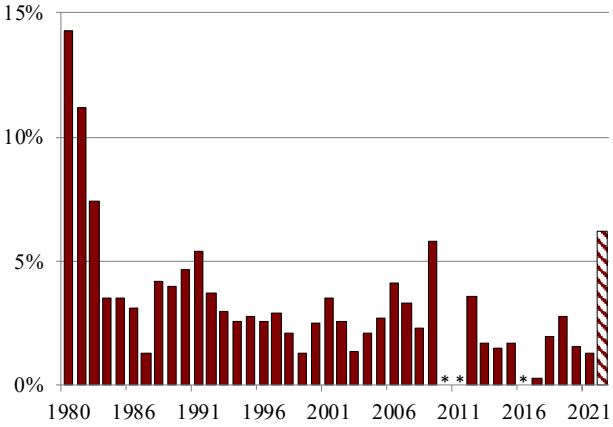
Figure 1. Social Security Cost-of-Living Adjustment, 1980-2022



Notes: Asterisks for 2010, 2011, and 2016 indicate no COLA. Striped bar for 2022 indicates anticipated COLA.
Source: U.S. Social Security Administration (2021a).

Box. What's the Right Inflation Index?

While the COLA is supremely popular, some critics contend that the CPI-W does not represent the price changes faced by retirees – particularly with respect to health care. They argue that Social Security should use a more appropriate index. In 1987, Congress directed the Bureau of Labor Statistics to calculate a separate price index for the elderly (those ages 62+). This index, called the CPI-E, has been constructed back to 1982. Over the period 1983-2020, the average annual increase for the CPI-E was 2.8 percent, compared to 2.5 percent for the CPI-W, but the differential has narrowed in recent years.[3]

The results from the CPI-E need to be interpreted with caution, as it is not constructed from scratch but rather is calculated by re-weighting data collected for all age groups. As a result, it suffers from several flaws. First, a relatively small number of households is used to determine the expenditure patterns. Second, prices are based on the same geographic areas and retail outlets used by younger people and may not represent those used by older people. 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 senior discounts. Thus, if the decision were made to employ an index for the elderly, a new index would be needed with a larger sample of older households that uses the prices for the products they buy at the places they shop.

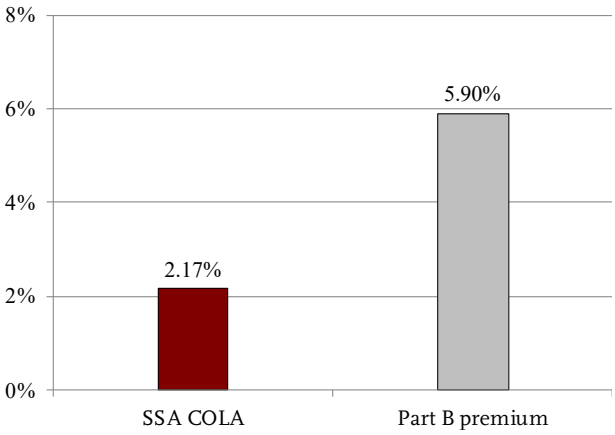
How Medicare Premiums Affect the Outcome

Individuals pay Medicare premiums for Part B (physician and outpatient services) and Part D (prescription drugs). While Part D premiums are often paid to insurers, Part B amounts are deducted from Social Security benefits before they are sent to the recipient. Part B premiums increase each year in line with Part B per capita expenditures.[4]

Since 2009, the level of the Medicare premium has been linked to income. For single individuals with incomes of $88,000 or less and married couples with $176,000 or less, the monthly premium in 2021 is $148.50. The premium rises for taxpayers above these thresholds, reaching a maximum of $504.90 per month for those at the highest incomes (see Appendix Table A1).

Between 2000 and 2020, the average annual adjustment for the Part B premium has been 5.9 percent compared to an average annual Social Security COLA of 2.2 percent (see Figure 2).

Figure 2. Average Social Security Cost-of- Living Adjustment and Average Annual Increase in Medicare Part B Premium, 2000-2020



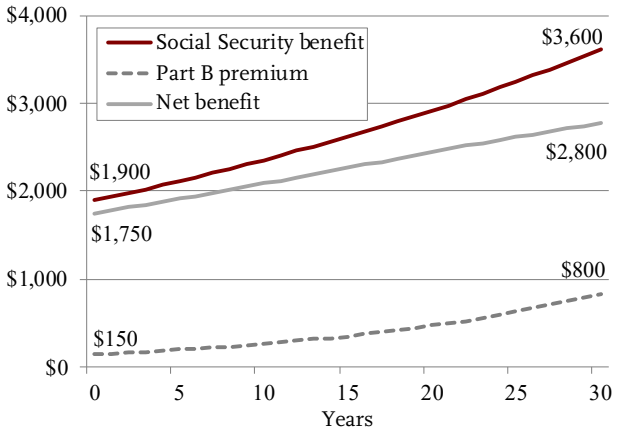
Sources: U.S. Social Security Administration (2021a); and Centers for Medicare and Medicaid Services (2020).

To see the impact on the *net* Social Security benefit of this more rapid growth in Medicare premiums, assume that the average benefit is about $1,900 per month and the Medicare Part B premium is $150. These amounts leave the beneficiary with a *net* benefit of $1,750 to spend on other items such as food, shelter, and clothing. If the COLA and the Medicare pre-

mium rise at 2.2 percent and 5.9 percent, respectively, in Year 2 the Social Security benefit would increase to $1,941 and the Medicare premium to $159. As a result, the beneficiary would receive a *net* benefit of $1,782, or 1.8 percent more than the original $1,750. Thus, the premium increase means that the *net* benefit does not keep pace with inflation of 2.2 percent.[5]

The difference between these increases may be minimal in a single year, but Figure 3 shows what happens if this process should continue for 30 years.[6] With full indexing, the nominal benefit rises from $1,900 to $3,600 – an 89-percent increase – while the *net* benefit increases from $1,750 to $2,800 – only a 60-percent increase. Instead of growing at 2.2 percent annually, the net benefit rises by only 1.6 percent. The impact of rising Part B premiums would be even greater for high-income individuals, because their premiums constitute a larger share of their Social Security benefits.

Figure 3. Hypothetical Growth of Average Social Security Benefit ($1,900), Part B Premium ($150), and Net Benefit Over 30 Years



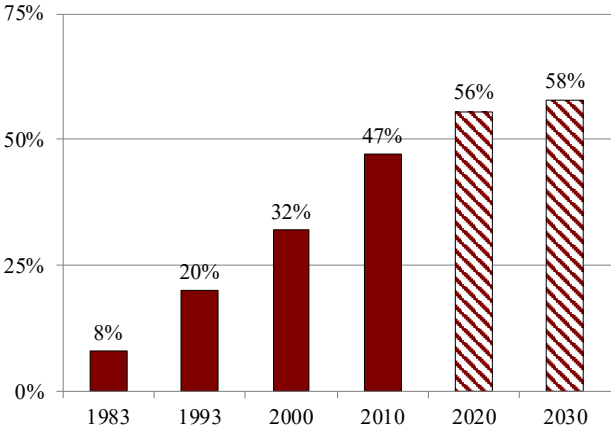
Notes: Social Security benefit is assumed to grow annually at 2.2 percent, and Medicare Part B premium at 5.9 percent. The *net* benefit for each year is the difference between the two.
Sources: Authors' calculations using U.S. Social Security Administration (2021a); Centers for Medicare and Medicaid Services (2020); and Clingman, Burkhalter, and Chaplain (2020).

Impact of Taxes on Social Security Benefits

The other way that inflation affects Social Security benefits is the extent to which they are taxed under 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 benefits. (Combined income is adjusted gross income as reported on tax forms plus nontaxable interest income plus one-half of Social Security benefits.) Above those thresholds, recipients must pay taxes on up to 85 percent of their benefits (see Appendix Table A2).

Because the thresholds are not increased in response to either wage or price growth, more and more beneficiaries are being taxed on their Social Security benefits over time. Note that while Social Security provides benefits on an individual basis, the income tax is levied on a family basis. Hence, estimates in Figure 4 show the percentage of beneficiary families paying taxes on their benefits. When the taxation of benefits was first introduced in 1983, only 8 percent of eligible families paid taxes on their benefits. Today, the estimate is that 56 percent of beneficiary families pay taxes on their benefits. Under moderate inflation, that percentage is projected to increase to 58 percent in 2030.[7] If inflation rises faster, Social Security benefits will be even higher in nominal dollars and more families will pay on more benefits – further reducing the *net* benefit.

Figure 4. Percentage of Social Security Beneficiary Families Paying Income Tax on Their Benefits, 1983-2030



Note: Striped bars indicate estimates.
Source: Purcell (2015).

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 anticipated COLA increase for 2022 highlights the importance of the automatic indexing provision.

However, two factors undermine some of the inflation protection offered by Social Security. First, in most years, rising Medicare premiums mean that a larger and larger chunk of the Social Security benefit goes to health insurance, so the net benefit available for non-health expenditures does not keep pace with inflation. Second, a personal income tax with unindexed thresholds for benefit taxation means that wage growth and inflation will subject an increasing portion of Social Security benefits to taxation. Taxation further reduces the *net* benefit that people will receive.

In short, even Social Security does not fully insulate older households from inflation's erosive impact.

Endnotes

1 In calculating workers' 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 percentage of pre-retirement earnings) remains stable.

2 Indeed, this was the case with the Social Security program from its origin in 1935 until 1975 when automatic indexing went into effect.

3 Estimates from the U.S. Bureau of Labor Statistics (2021a, 2021b) using the same method as Stewart (2008).

4 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 COLA. Several times during the 1980s, Congress overruled this legislation and voted to make the Part B premium 25 percent of the per capita cost 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.

5 In this example, Social Security's net benefit rises more slowly than inflation. A provision in the law protects against an actual decline in the amount of the net benefit by limiting the dollar increase in an individual's Part B premium to the dollar increase in his benefit. This hold-harmless provision applies to roughly 70 percent of Part B enrollees. The 30 percent not eligible for the provision include new enrollees during the year; enrollees who do not receive a Social Security benefit check; enrollees with high incomes, who are subject to the income-related premium adjustment; and dual Medicare-Medicaid beneficiaries, whose full premiums are paid by state Medicaid programs.

6 The only caveat to this illustration is that the relationship between the COLA and the increases in the Part B premium is unlikely to remain constant over time, because increases in Part B premiums and other medical costs should lead to an increase in the COLA – narrowing the gap. This caveat, however, does not negate the basic conclusion that increases in the Part B premium reduce the amount available for covering other expenses.

Of course, 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 the prices of other goods, medical care would account for a larger fraction of all goods purchased. This effect 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.

7 Purcell (2015).

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APPENDIX

Table A1. Medicare Part B Premiums by Income, 2021

Income thresholds		Monthly premium
Single	Married filing jointly	
$88,000 or less	$176,000 or less	$148.50
88,000 - 111,000	176,000 - 222,000	207.90
111,000 - 138,000	222,000 - 276,000	297.00
138,000 - 165,000	276,000 - 330,000	386.10
165,000 - 500,000	330,000 - 750,000	475.20
500,000+	750,000+	504.90

Source: Centers for Medicare and Medicaid Services (2021).

Table A2. Personal Income Taxation of Social Security Benefits

Family type	"Combined income" limits	Percentage of benefits subject to personal income taxation
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 (2021b).

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