Proposed Changes to Social Security’s Cost-of-Living Adjustment: What Would They Mean for Beneficiaries?

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As policymakers debate ways to reduce the federal budget deficit, several proposals have included a change to the way that inflation is calculated in Social Security. A new cost of living measure (chained-CPI), which grows more slowly than the current calculation (CPI-W), would reduce spending on Social Security as well as other federally administered programs such as Supplemental Security Income and pensions for veterans.

Changing the cost-of-living adjustment (COLA) would have a detrimental impact on the economic wellbeing of older and disabled Americans and their family members who receive benefits from Social Security. Small reductions to the annual COLA will accumulate over time so that the largest reductions in benefits will be on the oldest beneficiaries and the long-term disabled. For example, 92-year-old beneficiaries who were on the program for 30 years would see an 8.4% cut in benefits. Disabled children could face even larger benefit cuts over their lifetime. Oldest Americans are the least able to absorb cuts to their benefits as they are more reliant on Social Security for their income and have higher out-of-pocket medical spending and a higher poverty rate than younger Americans.

Social Security benefits are one of the few sources—for most people, the only source—of retirement income guaranteed to keep pace with inflation. The just announced 1.7% cost-of-living adjustment (COLA) for 2013, however, will refocus attention on the proper measure of inflation for Social Security beneficiaries—as concerns grow over the federal deficit and policymakers consider changes to put Social Security on a more solid financial footing.¹

Some experts contend that the inflation measure used for the current COLA overstates inflation because it does not fully account for the way that people substitute among different goods and services when relative prices change. They argue that future COLAs should be based on a more “accurate” measure of inflation known as a “chained” price index.² Other experts believe that the current measure of inflation understates the experience of older Americans because it does not adequately reflect their expenditures on health care. These experts argue for a switch to an elderly index, contending that a chained index would acerbate an already unfair situation.

This paper explains the purpose of COLAs, describes how they are determined, and reviews alternative measures of inflation that could be used to adjust Social Security benefits. It also discusses their implications for beneficiaries and for the solvency of Social Security.

What Is the Purpose of the COLA?

The annual COLA ensures that Social Security benefits maintain their purchasing power over time. Without it, the value of
Social Security benefits and beneficiaries’ standard of living would be eroded by rising prices. During the earliest years of Social Security, COLAs to Social Security benefits required legislation from Congress. Ad hoc adjustments occurred 10 times between 1950 and 1974. Since 1975, however, Social Security benefits have been automatically adjusted annually for inflation.

The COLA is not a “raise.” Rather, it is an adjustment needed to make sure that the purchasing power of a beneficiary’s Social Security benefit is not eroded over time by inflation. If the current COLA calculation understates (or overstates) inflation, then Social Security beneficiaries may be undercompensated (or overcompensated) for changes in their cost of living.

How Is the COLA Determined?

The Social Security Administration determines the annual COLA based on changes in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W). The CPI-W, like all price indexes, is produced by the Bureau of Labor Statistics (BLS). Social Security benefits either stay the same or increase, depending on changes in the CPI-W average during the third quarter (June, July, and August) from one year to the next. No COLA is provided until the third-quarter average CPI-W has risen above its previous highest level.

The CPI-W and Other Measures of Inflation

In addition to the CPI-W, BLS produces other price indexes. These price indexes are based on the spending patterns of different populations and have been proposed by some experts as better alternatives for determining Social Security’s annual COLA. The following section provides more information on the CPI-W and the alternative indexes.

CPI-W: The Consumer Price Index for Urban Wage Earners and Clerical Workers

The CPI-W reflects the spending habits of about 32% of the U.S. population. More specifically, the CPI-W is limited to households that derive more than half of their income from clerical or wage occupations, and where at least one earner has been employed for at least 37 weeks in the past year.

The CPI-W does not necessarily reflect the spending habits of older individuals or individuals who have not been in the workforce for an extended period of time. It was the only price index calculated by BLS at the time that benefits were first automatically adjusted in 1975. Since then, BLS has developed other indexes.

CPI-U: The Consumer Price Index for All Urban Consumers

The CPI-U represents the spending patterns of about 87% of the total U.S. population. The sample used to calculate the CPI-U includes retired persons, self-employed workers, professionals, and unemployed individuals—groups that are not currently explicitly captured by the CPI-W. It was introduced in 1978 and is used for annually adjusting parameters of the tax code and poverty thresholds for inflation. Some argue that the CPI-U is better suited to be the basis of the Social Security COLA because it includes retired persons. Even though the CPI-U is more representative of the Social Security population, it was never adopted. To do so would require legislation.

CPI-E: Experimental Price Index for the Elderly

The CPI-E is an experimental index for Americans age 62 years or older. BLS constructs the CPI-E by re-weighting the “expenditure categories” in the CPI-U to reflect the average expenditures of people age 62 and over. Many experts believe
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Why No COLA in 2010 and 2011?

Still fresh in the minds of many Social Security beneficiaries is the lack of COLAs for 2010 and 2011—the first time this has occurred since the adoption of automatic adjustments in 1975. Although this difference was driven largely by the timing of wide fluctuations in energy prices, it created much confusion among beneficiaries. Squeezed by rising prices for food, health care, and other necessities, many beneficiaries worried that their Social Security benefits were not keeping pace.

Figure 1 shows the average CPI-W by quarter for 2007 through the third quarter of 2012. As shown in the chart, overall prices rose fairly sharply from the third quarter of 2007 to 2008 (from a CPI-W of 203.6 to 215.5). This 5.8% growth in overall prices determined the COLA for 2009. The 5.8% COLA increase for 2009 was the largest COLA since 1982.

After the 2009 COLA was calculated, a large drop in energy prices caused overall prices to drop sharply in the last quarter of 2008. Prices hit a trough in the first quarter of 2009 before beginning to rise again. In effect, the 5.8% COLA for 2009 compensated the “average” beneficiary for inflation that no longer existed. Although prices continued to rise from one quarter to the next, overall prices for the third quarter of 2009 and 2010 were still below those of the third quarter of 2008 (as illustrated by the black horizontal line). As a result, there was no COLA for 2010 or 2011. However, prices grew enough during the third quarter of 2011 so that the average CPI-W (for the third quarter) was 3.6% greater than it was during the third quarter of 2008, a growth in prices that resulted in the 3.6% COLA for 2012.
that the CPI-E is a better indicator of inflation for older Americans because it more accurately reflects their spending patterns (i.e., their “market basket” of goods and services consumed).

Compared with the CPI-W and the CPI-U, the CPI-E typically grows faster because the population age 62 and older spends more money on items whose prices increase more quickly, such as medical expenses.

Although the CPI-E is an experimental measure, BLS could create a true elderly index that reflects the same level of rigor used to create the other indexes. To do so, BLS would have to survey a sufficiently sized sample of people age 62 and over to determine their spending habits and collect price quotes on the items they buy from the retail outlets where they purchase goods and services. Nonetheless, many look to the CPI-E for some indication of what a true elderly index might mean for Social Security COLA.

What Is in the Market Basket?

Because the various price indexes reflect the spending habits of different groups of individuals, the level of importance placed on the expenditure categories will vary, resulting in a different market basket of goods. The market baskets used to construct the indexes are based on detailed expenditure information provided by a sample of families and individuals in the Consumer Expenditure Survey (CES). The survey data are updated every two years.

The basis of the current indexes is the CES for 2009 and 2010. The market basket of goods and services includes 211 categories (known as “elementary items”) that range from breakfast cereals to men’s shirts and sweaters to prescription drugs. BLS organizes these categories into eight major groups. The groups, and their relative importance in the construction of the indexes (also known as weights), are shown in Table 1.

Housing and medical care accounted for a larger share of total expenditures for the older population than those populations represented by the other indexes. For example, medical care accounted for about 11.6% of the older population’s total expenditures (CPI-E), but only 5.7% for urban wage earners and clerical workers (CPI-W, the basis for Social Security’s COLA) and 7.1% for all urban consumers (CPI-U). Meanwhile, food and beverages and transportation accounted for a smaller share of the older population’s expenditures.

Table 1 clearly illustrates that the spending patterns of older Americans differs from those groups dominant in other indexes. When combined with health care costs, which typically have risen faster than other forms of consumption, it suggests that the current COLA may understate older Americans’ experience with inflation.

Figure 2 indicates that medical costs (National Health Care Expenditures) have increased faster than inflation over the past several decades. They have risen two to three times more quickly annually (and as much as six times more in 2002) than overall prices (measured by the CPI-U). The faster pace of the growth in medical costs and the fact that older Americans are more likely to incur these costs suggest that a greater emphasis should be placed on medical expenditures when determining seniors’ inflation experience.

However, another concern with the measure of inflation reflected by these indexes is not particular to older Americans—the current formulas used to calculate all three indexes do not take into account the substitution across categories (i.e., the 211 elementary items) that may occur when prices change. Many experts
argue that by not fully accounting for these substitutions, the current measure overstates inflation.

### Accounting for Substitution

BLS uses the Consumer Price Index (CPI) to report average changes in the prices of a market basket of goods and services between two periods. The CPI is intended to be a proxy of a cost-of-living index (COLI); as such, BLS uses the concept of a COLI to guide its decisions regarding the development of the CPI.

A COLI is a theoretical construct that measures the minimum amount that consumers need to spend to reach a certain utility level or standard of living under two price situations. The basic CPI is not a true COLI because (1) it does not take into account changes in non-market factors like crime, the environment, or other factors that affect the consumer’s wellbeing; and (2) it does not fully take into account changes in consumer consumption patterns that may result from changes in the relative prices of goods and services.

Economic theory states that if the relative prices of goods and services change, consumers will substitute relatively less expensive goods for relatively more expensive goods. They do this in order to maximize their standard of living given

<table>
<thead>
<tr>
<th>Groups</th>
<th>Examples of Categories</th>
<th>Relative Importance in CPI-U</th>
<th>Relative Importance in CPI-W</th>
<th>Relative Importance in CPI-E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food and Beverages</td>
<td>breakfast cereal, milk, coffee, chicken, wine, full-service meals, snacks</td>
<td>15.3</td>
<td>15.9</td>
<td>13.1</td>
</tr>
<tr>
<td>Housing</td>
<td>rent of primary residence, owners’ equivalent rent, fuel, oil, bedroom furniture</td>
<td>41.0</td>
<td>39.8</td>
<td>45.5</td>
</tr>
<tr>
<td>Apparel</td>
<td>men’s shirts and sweaters, women’s dresses, jewelry</td>
<td>3.6</td>
<td>3.6</td>
<td>2.4</td>
</tr>
<tr>
<td>Transportation</td>
<td>gasoline, motor vehicle insurance, public transportation fares</td>
<td>16.9</td>
<td>19.0</td>
<td>14.8</td>
</tr>
<tr>
<td>Medical Care</td>
<td>prescription drugs and medical supplies, physicians’ services, eyeglasses and eyecare, hospital services</td>
<td>7.1</td>
<td>5.7</td>
<td>11.6</td>
</tr>
<tr>
<td>Recreation</td>
<td>televisions, toys, pets and pet products, sports equipment, admissions</td>
<td>6.0</td>
<td>5.6</td>
<td>5.4</td>
</tr>
<tr>
<td>Education and Communication</td>
<td>college tuition, postage, telephone services, computer software and accessories</td>
<td>6.8</td>
<td>6.8</td>
<td>3.9</td>
</tr>
<tr>
<td>Other Goods and Services</td>
<td>tobacco and smoking products, haircuts and other personal services, funeral expenses</td>
<td>3.4</td>
<td>3.5</td>
<td>3.3</td>
</tr>
</tbody>
</table>

Total 100 100 100

Source: BLS
their expenditure budget. The implication of this substitution behavior is at the crux of the CPI debate: the amount of money that would be needed for these consumers to maintain the same standard of living after a price increase is less than it would be if they still purchased the same quantity of different goods (i.e., if they did not engage in substitution). Hence, a COLI would account for substitution from changes in relative prices. However, up until 1999, BLS did not account for any substitution effects.

Beginning in January 1999, BLS began using a different formula for calculating the CPI—a geometric mean formula—that accounts for substitution within most of the 211 item categories (or “elementary items”). This change slowed the growth in the CPI and decreased the Social Security COLA.

For example, under the current formula, when the price of Porterhouse steak (a good in the “beef” category) increases, the CPI-U and CPI-W consider that a person can switch to purchasing top sirloin (another good in the “beef” category).

Similarly, if the price of a name-brand prescription drug increases, the current indexes will take into consideration that a person can switch to a generic prescription drug (both are covered under the category “prescription drugs”). This type of substitution is referred to as “lower-level substitution” because it occurs within the lower-level item categories. However, substitution could occur between item categories as well. The basic indexes do not allow for this type of substitution. This potential bias, known as “upper-level substitution bias,” results in a higher CPI.

The Chained Consumer Price Index for All Urban Consumers (C-CPI-U)

The chained CPI accounts for more complex substitutions in response to relative price changes than either the CPI-U or the CPI-W. It is therefore considered to be a closer approximation to a COLI. Although the chained CPI uses the same prices as the other indexes, it combines those prices using a different formula and different weights that account for substitution across the
211 item categories. BLS developed the chained CPI-U (C-CPI-U) and first published it in 2002 to account for this “upper-level substitution bias” inherent in the standard CPIs.

For example, the C-CPI-U accounts for the substitution of chicken, seafood, or pork (goods outside of the “beef” category) when the price of beef increases. Similarly, the chained index will account for the substitution of used cars for new cars if the relative price of new cars increases.

Is the chained CPI a more accurate measure of inflation for all subgroups of the population? This remains a largely unanswered question. In particular, some experts have questioned whether older Americans, people with disabilities, and the poor have the same substitution opportunities as other people. If they do not, then the chained CPI may not be the appropriate measure of inflation for them.

Although economic theory provides a strong foundation for recognizing the importance of substitution in people’s wellbeing, very limited research has actually examined whether this substitution varies by age or income. The most recent research on this issue is a 1996 BLS report that focused on the poor. The authors found that the substitution bias was lower for this group, but they could not test whether the difference was statistically significant. More research is needed on the substitution behavior of certain subgroups, including older Americans, using consumption patterns and prices actually paid by those groups.

How Would Using Different Price Indexes Impact the Social Security COLA?

Figure 3 shows the actual Social Security COLA based on the CPI-W and what it would have been using the CPI-E and C-CPI-U. Some trends are clearly visible. First, a COLA based on the CPI-E generally would have been higher than the actual Social Security COLA (based on CPI-W). In addition, the COLAs based on the CPI-E and CPI-W would have been higher, generally, than a COLA based on the chained CPI-U. In fact, from 1982 to 2010, the CPI-E grew, on average, about 0.27 percentage points faster each year than the CPI-W, while the chained CPI-U grew, on average, about 0.3 percentage points more slowly each year than the CPI-W. Although this difference is true, on average, it is not necessarily the case in each year. Social Security would not have have provided a COLA for 2010 and 2011 under any of these indexes.

What Are the Implications for the Economic Wellbeing of Beneficiaries?

Although the annual differences in these price indexes are relatively small, they can lead to significant changes in benefits over time. The effects of a small change in the COLA accumulate the longer a person receives a benefit. Thus, older individuals and those receiving benefits for the longest period of time...
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(such as the adult disabled and disabled children) will experience the largest decreases (or increases) in benefits from switching to a C-CPI-U (or to an elderly index like the CPI-E) relative to maintaining the COLA as calculated under current rules.

Figure 4 shows the cumulative effects of switching to a C-CPI-U or CPI-E. For example, if the COLA were based on the C-CPI-U, benefits would be 2.9% lower than current law after 10 years (age 72), and 8.4% lower after 30 years (age 92). If the COLA were based on an index similar to the CPI-E, benefits would be 2.0% higher than current law after 10 years, and 6.0% higher after 30 years.14

In sum, the cumulative effect of a switch to a C-CPI-U impacts the oldest old the most—precisely at the time they are likely to have fewer sources of retirement income and higher out-of-pocket medical expenses.

Table 2 shows that the amount of money spent on out-of-pocket medical expenses increases as older Americans age, both in absolute terms and relative to income.

The median out-of-pocket expense as a percentage of income is 28% for Americans age 85 and older, about 2½ times greater than that for persons age 65 to 69.

At the same time, the percentage of those in poverty also rises with age. In 2011, the official poverty rate for Americans ages 65–69 was 7.5%, while that for Americans age 85 and older was 11.5%; a difference of more than 50%. This can be the result of factors such as the inability to continue working, exhausting savings, running out of sources of retirement income, or the death of a spouse.

Those who rely most heavily on Social Security and who are the poorest will experience the biggest reduction in their income and consumption and therefore their economic wellbeing. For example, someone who relies entirely on Social Security will experience an 8.4% cut in total income after 30 years using the C-CPI-U, whereas someone who relies on Social Security for only one-quarter of their total income will experience a cut in total income of 2.1% (= 8.4% * ¼) after 30 years.
Older Americans depend more heavily on Social Security as a source of income as they age. Social Security estimates, for example, that 19% of older families that receive Social Security benefits depend on Social Security for at least 90% of their retirement income. For those age 80 or older, this percentage increases to almost 34%.\(^{15}\) Thus, the C-CPI-U will produce the largest benefit cuts during the time when older Americans need more resources to pay for increasing out-of-pocket medical costs, are most dependent on Social Security benefits, and are at the greatest risk of poverty.

**What Is the Impact on Social Security Solvency?**

Changing the way Social Security calculates the annual COLA would have significant implications for Social Security’s finances.

The Social Security program currently faces a funding shortfall. According to the estimates by the Social Security Administration’s actuaries, the Social Security Trust Funds will be exhausted beginning in 2033. This means that beginning in that year, Social Security will only be able to pay benefits to the extent of the payroll taxes it receives and revenue from the taxation of Social Security benefits—it is estimated to be enough to pay about three-fourths of promised benefits beginning in 2033 and thereafter.
Another way to characterize Social Security’s funding shortfall is as a percentage of the taxable earnings base (the total amount of wages and self-employment income that is subject to Social Security payroll taxes). According to the actuaries, Social Security’s funding shortfall over the 75-year measurement period is about 2.67% of taxable payroll. To eliminate the 75-year funding shortfall, the payroll tax rate would need to be raised immediately by about 2.61 percentage points.\textsuperscript{17}

Social Security actuaries have estimated the effects of a change in the COLA on the 75-year shortfall. They estimate that changing to a chained CPI that pays out less in total benefits would close about 23% of the 75-year shortfall. Using an elderly price index, such as the CPI-E, so that more total benefits are paid out would increase by about 16% the 75-year shortfall.\textsuperscript{18}

**Conclusion**

To ensure the wellbeing of the oldest and most vulnerable Americans, it is imperative that an accurate measure of inflation is used to prevent the erosion of the value of the vital retirement income component provided by Social Security benefits. Developing accurate price indexes to measure inflation may seem like a technical exercise, but these measures have a real impact on the living standards of people receiving Social Security benefits. Additionally, further research is needed to determine the most accurate measure of inflation—substitution bias differences by income or age are currently unknown.

COLA reforms must take into account the long-term impact of changes on the wellbeing of older Americans, people with disabilities, and other beneficiaries for whom Social Security is a foundation of economic security. At the very least, any measure of inflation for Social Security benefits should consider that the Social Security population tends not to be working and thus has different spending needs. Any index that does not take into consideration that older Americans spend a larger share of their income on health expenditures and that the costs of these health expenditures have risen over the years may put an undue burden on already fragile retirements.

**Endnotes**


2 Adopting the chained CPI for all federally administered programs would reduce annual COLAs for recipients of Supplemental Security Income (a means-tested income support program for the blind, elderly, and disabled) and federal pension programs (civilian and military). It would also reduce the annual adjustments made to parameters of the Internal Revenue Code (including tax brackets) and the thresholds for income-related part B premiums.

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6 The Consumer Expenditure Survey, an annual BLS survey, provides information on the purchasing habits of American consumers, including data on their expenditures, income, and characteristics.


10 One limitation of the C-CPI-U is that it is subject to two revisions after the initial release in preliminary form; the final number is released two years after the closing of the measurement period. The BLS reports that these revisions have been generally small and that future revisions are expected to be about the same size. In particular, the BLS reports that the “12-month changes” for the overall index “generally have been less than 0.2 index point or less.”


12 It is important to remember that the CPI-E is an experimental measure and the COLA based on a fully developed elderly index could be higher or lower than that represented by the CPI-E.


14 For purposes of these calculations, we have used the Social Security Actuaries assumptions that adopting the chained CPI would result in an annual COLA that is 0.3 percentage point lower and that an elderly CPI would result in an annual COLA that was 0.2 percentage point larger than the current-law COLA. The Congressional Budget Office projects a slightly smaller decrease in the annual COLA using the chained CPI than the Social Security Actuaries; they assume a difference of 0.25 percentage point.


18 These results are based on the assumptions in the 2011 Trustees Report and were taken from http://www.ssa.gov/oact/solvency/provisions/cola.html.