Alternative Measures to Index Social Security Benefits
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ABSTRACT

After more than three decades of yearly cost-of-living adjustments, 2010 was the first year to
experience no COLA, and 2011 will follow suit thereafter. This has caused great tension between
Social Security beneficiaries and the government, due to rapidly increasing health care costs and
the lack of increase in benefits. This paper investigates the rationale behind indexing the cur-
rent Social Security system to the Consumer Price Index for Wage Earners and Clerical Workers
(CPI-W). In addition, we explore the effects of reforming the system to be indexed to various
price measures including the CPI-U, CPI-E, C-CPI-U, and the PCE. After gathering data from
the Bureau of Labor Statistics and comparing the levels of the CPIs prior to the spike of 2008 to
the present, we find that no Consumer Price Index has reached the 2008 threshold, so no index
would have yielded a COLA to date. When examining current recommendations for potential
benefit indexation systems, we consider a system’s costs to the government, equity to beneficia-
ries, and feasibility for implementation.

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Background and Motivation

The Current Indexing System

In 1972, Congress amended the Social Security Act to automatically index Social Security benefits with an annual Cost of Living Adjustment (COLA) tied to the increases of the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W). The new automatic indexation replaced the previous system that required Congress to vote for increases every few years.

When a person retires, his lifetime earnings are indexed to account for changes in average wages since the year the earnings were received. The adjusted earnings are then inserted into the Social Security Administration’s benefit formula, which returns the basic benefit or “primary insurance amount” (PIA). If applicable, the PIA is adjusted for either early or delayed retirement. Furthermore, there may be other offsets that are also withheld from the benefit check, including Medicare Supplementary Medical Insurance, or Medicare Part B, premiums. Monthly benefits are the PIA after these adjustments.

The monthly benefit changes when there is a COLA, based on the change from the third-quarter CPI from year to year. Because the COLA increases the PIA, for some beneficiaries, the increase in benefits is not always equal to the COLA.

Problems

CPI Spike of 2008

In 2009, Social Security benefits increased 5.8 percent, reflecting an unusually fast-growing CPI in the third quarter of 2008 that rose to 215.496. Spikes in virtually all measures of price levels during this time period largely mirror the spike in oil prices, which most economists
have attributed to quickly growing demand, especially in China, meeting with stagnating world production (Hamilton). 2008’s fourth quarter average had plummeted to 208.097, and has not fully rebounded to date. Thus, there was no cost of living adjustment in 2010, and there will be none for 2011 either.

The cost of living adjustment stemming from 2008 was the greatest since 1982. When indexing Social Security benefits, United States law stipulates that COLAs are the percentage change in the CPI based on the most recent year in which there was a COLA and cannot be negative. Thus, though the price level declined after 2008 and has not since reached that high point, nominal benefits could not be decreased.

**Figure 1**

![CPI-W Spike Parallels Gasoline Price Spike](image)

Sources: US Energy Information Administration and BLS

**Rising Health Care Costs**

The purpose of the COLA is to maintain the real value of benefits and therefore, the purchasing power of beneficiaries. However, because of rising health care costs, some argue the
current indexing system does not protect beneficiaries from inflation (Goda, Shoven, and Slavov). The elderly have higher living expenses because they are disproportionately affected by rapidly increasing medical costs. Since 1970, health care spending has risen 2.4 percentage points faster than GDP (Trends).

More specifically, there is concern about the premiums of Medicare Part B and Part D, Medicare programs in which many Social Security beneficiaries participate. The premium payments of Medicare Part B and Part D are often withheld from the benefit amount. Hence, the real value of benefits for non-medical spending will decrease as the premiums increase and benefits go without a COLA. One way in which the government has attempted to avoid the decreasing real value of benefits is through the “hold harmless provision.” The provision prevents the increase of basic Part B premiums, in any year, from exceeding the increase of that year’s COLA; therefore, no COLA in 2010 and 2011 means that the basic premium must stay the same.

However, the provision fails to immunize all beneficiaries from the effects of increasing Medicare premiums. About 25% of beneficiaries are not eligible for the hold harmless provision (Medicare). This amounts to 11 million beneficiaries who will still see the large increase in their premiums if they do not have their Part B premiums withheld from their Social Security checks,
pay a higher Part B premium based on higher income, or are newly enrolled in Part B. In addition, the provision does not apply to premiums for Medicare Part D prescription drug coverage. Medicare’s trustees project that premiums for Parts B and D will grow at a faster rate than average Social Security benefits in the future, thus consuming a greater proportion of benefits over time. In 2000, Medicare Part B premiums absorbed 5% of a recipient’s benefits upon retirement. It is projected that in 2078, a retired worker receiving the average initial Social Security benefit amount will need 22% of benefits to pay the Part B premium (Shelton). Therefore, there are still many beneficiaries receiving, and who will continue to receive, decreased benefits for non-medical spending.

**Existing Literature on Various Price Indexes**

For the first time since the debate on over-indexing benefits sprang up in the 1970s and 1980s, the system of indexing benefits has come under intense political fire. Politicians, economists, and the public are questioning the efficiency and logic of indexing Social Security benefits to the CPI-W, in relation to both protection against inflation and cost. Largely due the recent absence of COLAs and rising medical costs, there has been research regarding indexing benefits to an alternative CPI, one that would give a higher weight to the health care spending of the elderly. Therefore, most literature related to this topic focuses on the cost of living for the elderly and the indexing of their benefits to maintain real value. However, any large reform to the Social Security program, including an alternative indexing method, needs to take into account the Trust Fund’s depletion, currently projected to occur in 2037 (Bowles).

The Bureau of Labor Statistics (BLS) computes several price indexes monthly. The indexes differ in the weights that are given to expenditure categories. The CPI-W represents the
spending pattern of about 32% of the population. In contrast, the CPI for All Urban Consumers (CPI-U) mirrors the spending pattern of 87% of the population. Since 1987, the BLS has been computing, but not publishing, an experimental index of the elderly (CPI-E). The CPI-E represents the spending patterns of those aged 62 years and older, about 20% of the CPI-U population. In addition, the BLS produces a special index, the CPI less food and energy, more commonly known as the “Core” CPI. The “Core” CPI measures the inflation level without the effects of volatile food and energy prices. Since 2000, the BLS has published a new chained-type CPI, the C-CPI-U. The traditional Laspeyres method of calculating price indexes does not take into account consumer substitution biases. The C-CPI-U considers a consumer’s ability to substitute goods and outlets as prices change, making it a more accurate measure of the cost of living. In addition, the Bureau of Economic Analysis (BEA) also calculates the chained-type Personal Consumption Expenditure (PCE) price index. All of these price indexes have been in contention for an alternative indexing system of Social Security benefits.

**CPI-U**

The CPI-U was introduced in 1978. It differs from the CPI-W in the weights that it gives food, transportation, housing, and medical care. The population of all urban consumers spends less on food and transportation, and more on owner-occupied housing and medical care. In 1989, the Assistant Director for Fiscal Analysis of the Congressional Budget Office (CBO), Frederick Ribe, addressed the Social Security Subcommittee on Ways and Means of the U.S. House of Representatives on the topic of changing the indexation of benefits to the CPI-U. From 1978 to 1989, the CPI-U grew .2 percent faster than the CPI-W. Because the CPI-U is more representative of the general population, advocates argue that it is a more accurate price measure.
In addition, the CPI-U is also the “CPI” that is most often quoted in the media. However, Ribe and the CBO argue against the use of the CPI-U as the appropriate Social Security benefit index. The CBO attributes the insignificant difference between the CPI-U and CPI-W to sampling and collecting errors. Furthermore, although the CBO believed the switch could not have any certain budgetary implications due to volatile energy prices, the change itself may be politically unfeasible because beneficiaries could still interpret any Social Security reform as a cost-saving measure. Currently, the general economic community is still in agreement with Ribe and the CBO. The CPI-U is never a serious consideration for change because it neither has a stronger case for inflation compensation than the CPI-W nor has drastic cost-saving implications.

**CPI-E**

The CPI-W and CPI-E differ much more significantly. The Older Americans Act of 1987 directed the Bureau of Labor Statistics to start computing the experimental CPI-E. The index weights the expenditure categories differently from the CPI-W weights in order to better represent the spending habits of the elderly. The elderly often have higher living expenses because medical spending is a higher share of their income than the nonelderly (Goda, Shoven, Slavov). Therefore, the CPI-E gives a higher weight to medical spending than the CPI-W does. Over the past 20 years, the CPI-E has increased faster than the CPI-W because of rising medical costs (Stewart and Pavalone). Indexing benefits to the CPI-E would then better protect beneficiaries from the effects of inflation. However, the higher compensation in benefits with the CPI-E would cause the Trust Fund to expire 5 years sooner than currently projected (Goda, Shoven, Slavov).
The BLS recently published a documentation reviewing the price changes of the CPI-E from 1997 to 2009. Over the 12-year period, the CPI-E rose 36.1% as opposed to the 33.9% increase in the CPI-U and the 33.8% increase in the CPI-W. However, the documentation also iterates the limitations of the CPI-E, all of which undermine it as a proper index for Social Security benefits. The CPI-E, like the CPI-U and CPI-W, does not take into consideration substitution and outlet bias problems or the different prices that the elderly often pay. The CPI-E’s sampling population is only about 20% of the CPI-U population, making it less precise. In addition, about 25% of that sampling population does not receive benefits, and therefore does not fit the constituency in which the index is meant to reflect. Finally, about 25% of Social Security recipients are below the age of 62, receiving survivor or disability benefits. For these reasons, the CPI-E remains an imperfect index for Social Security benefits *(Experimental)*.

**C-CPI-U**

In 1995, the U.S. Senate appointed the Advisory Commission to Study the Consumer Price Index, more commonly known as the Boskin Commission, to research possible biases in the computation of the CPI. A year later, when the Boskin Commission published its final report, “Toward a More Accurate Measure of the Cost of Living,” it reported the CPI overstated inflation by about 1.1% points per year. This overestimate was due to the CPI’s inability to account for substitution bias, outlet bias, quality change bias, and new product bias. As a result of the Boskin Commission, in 2000, the BLS began producing the C-CPI-U, which accounts for the ability of consumers to substitute goods or change purchasing outlets in response to relative price changes. The BLS accomplishes this by changing the expenditure weights for the C-CPI-U monthly, rather than biennially. In fact, the difference between the C-CPI-U and the CPI-U is
very large. Robert Gordon, in “The Boskin Commission Report: A Retrospective One Decade Later,” finds that from 2000 to 2006, the C-CPI-U was about .38 percentage points lower per year than the CPI-U, affirming the Commission’s conclusion of the CPI’s overcompensation for inflation. If the December 2006 COLA had been adjusted by the C-CPI-U, the average monthly benefit would have been $4.70 less than with current indexing, and the Trust Fund’s insolvency would be delayed 4 years (Burdick and Fisher).

**PCE**

The BEA’s chained-type Personal Consumption Expenditure (PCE) price index has performed similarly to the C-CPI-U. From 2000 to 2006, the PCE also increased about .38 percentage points less than the CPI-U (Gordon). Although the calculation of the PCE is largely dependent on the BLS’s CPI data, there are some important differences. The PCE is based on business surveys, as opposed to the CPI’s household surveys. The PCE and CPI have expenditure weight differences, as well as scope differences, where some items are included in the CPI but not in the PCE and vice versa. An important difference in their scope is the way in which the PCE accounts for medical spending. It accounts for health care expenditures of not only households, but also employers and government programs, which may not be relevant to individuals’ spending patterns (Moyer).

Gordon (2006) still estimates the overcompensation of the CPI-W to be about 1%, even ten years after the Boskin Commission and the changes instated by the BLS. This implies that the COLAs tend to increase, rather than merely maintain, the purchasing power of benefits over time (Burdick and Fisher). Both the C-CPI-U and the PCE can resolve this overcompensation.
Conclusions

When evaluating potential benefit indexation systems, policymakers should consider a system’s costs to the government, equity to beneficiaries, and feasibility for implementation. As shown in Figure 3, no price measure would have yielded a COLA immediately following the 2008 spike in gas prices. Not even the chained CPI has reached its maximum for 2008 to date.

The report released this December by the National Commission on Fiscal Responsibility and Reform recommends indexing most mandatory budget and tax code, including Social Security benefits, to a chained CPI. “The Bureau of Labor Statistics,” the report explains, “has stated that the chained CPI is designed to more closely approximate a cost-of-living index than the standard CPI, and experts on both sides of the aisle have supported this technical improvement to the index” (Bowles). In fact, not only have chained-type price indexes risen more slowly than other measures of price level and are thus less costly to index benefits, but they are also less sensitive to spikes, as seen in Figure 3. If equitable benefits are thought to be benefits that rise as closely to inflation as possible, then a chained-type index may have strong appeal. The BEA’s Personal Consumption Expenditure price index incorporates chaining, but
also measures expenditures of employers that would be irrelevant to individuals’ benefits. On the other hand, the chained CPI-U is thought to be a highly accurate measure of consumers’ spending patterns, and could therefore be an equitable solution.

However, the chained CPI’s critical flaw is a two-to-three year lag time in publishing final monthly values, which would make yearly indexing of benefits unfeasible. Though the initial monthly values for the chained CPI are published in the successive months, simultaneous with the publication of the CPI-U, all 12 monthly indexes for a given year are revised in February of the next year — these are called interim values — and then finalized in the next year, two years later. According to BLS experts, the lag in publishing the final values is due to the relatively small sample size of their monthly Consumer Expenditure (CE) Survey, which necessitates a longer time period for collection in order to track actual changes in spending. In order to produce reliable estimates from one month’s worth of sampling, the BLS would need final monthly expenditure estimates on each of the more than eight thousand items that contribute to price level from an even greater number of CE participants. The CE is administered through a diary component and an interview component. Ideally, lag time for the chained CPI could be brought closer to the two-to-three-week period for other CPI measures. But even if the government were willing to foot the bill for increasing the size of the CE survey, BLS officials still warn that enhanced technology and processes, and possibly additional staff, would be needed to analyze so much new data each month (Klick). Given the current significant lag time in calculating chain-type CPI values, policymakers should take recent recommendations to index benefits to a chained CPI with a grain of salt, given the financial and technological barriers to such a change.
While chained-type indexes have been praised for their potential to cut costs by more accurately reflecting price levels, a strong argument exists for indexing to the CPI-E on the basis of equity, so that benefits more accurately reflect senior citizens’ spending patterns — namely, an increased relative expenditure on rapidly rising medical care. Still, a major drawback to this experimental measure is its limited scope in that it measures spending only of those over the age of 62, while some Social Security beneficiaries are not in fact at retirement age, but receive survivor or disability benefits. Though the CPI-E may have significant sampling error because it is calculated from the 20% of CPI-U respondents over 62, the error could be reduced if policymakers were to adopt this arguably more equitable index by administering the CE to a larger sample of senior citizens, at an added cost. The CPI-E would still suffer from the standard substitution problems, unless policymakers were to conduct it in a chained-type way. Perhaps the most rational and logical solution would be to administer a monthly survey to senior citizens, or perhaps just Social Security beneficiaries, with a large enough sample size to make the chained-type index feasible for a yearly COLA. Though the costs of administering such a survey may be significant, policymakers should give serious thought to the costs to be saved in the long-run by switching to a chained-type index, at the same time ensuring the public of the government’s commitment to keep the real purchasing power of retirees intact by better taking into account their rising health care costs.
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